

• STUDIES IN EDUCATION •

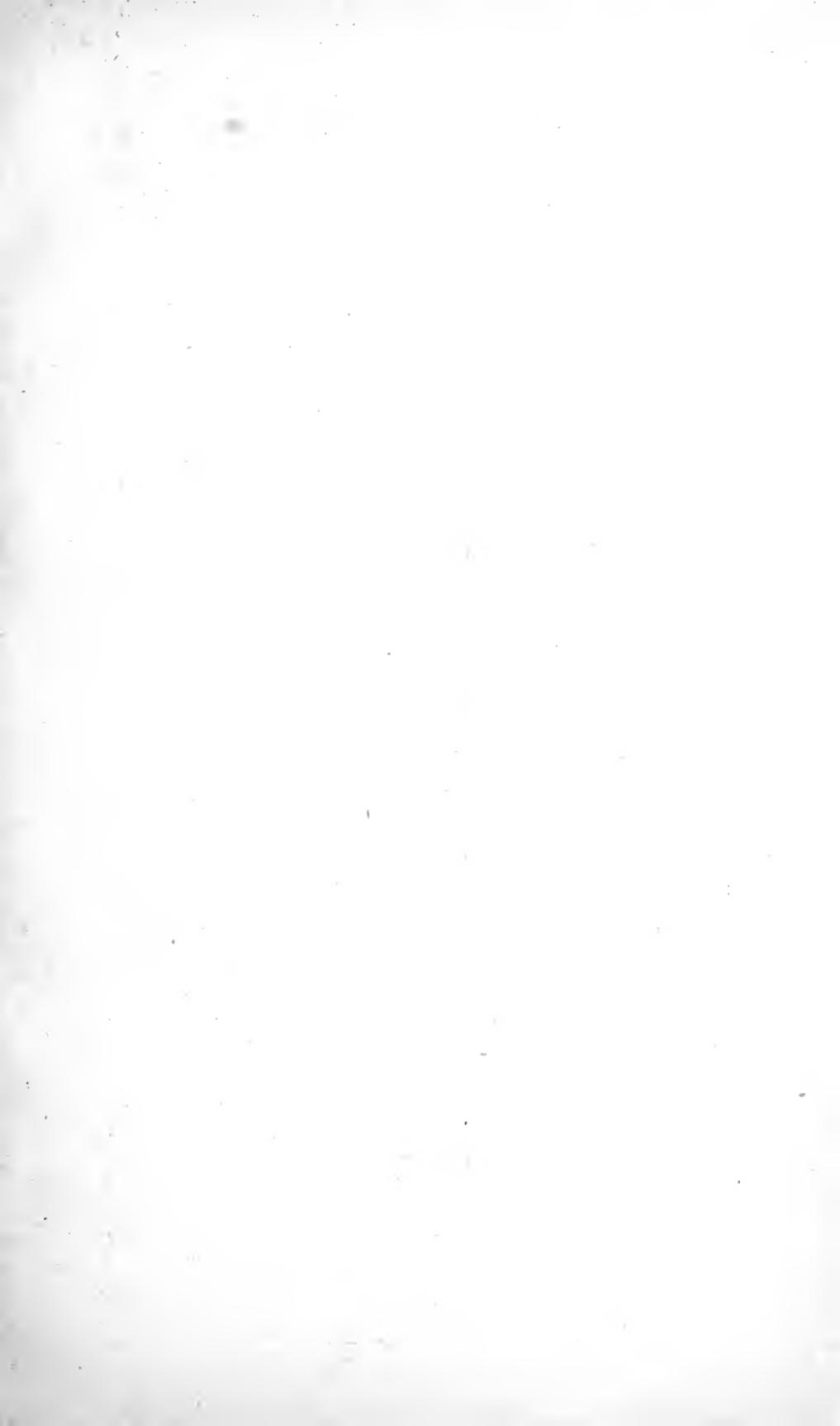
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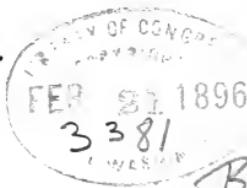
SCIENCE, ART, HISTORY

With much pleasure

BY

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CHICAGO NEW YORK
WERNER SCHOOL BOOK COMPANY

1896

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To the Members of the National Council of
Education:

The papers that are here brought together and stamped with the title "Studies in Education," in the range of their dates just cover the period of my association with you in what we familiarly call THE COUNCIL: 1885-1895. Several of these papers were written as contributions to our discussions, and all of them have been influenced directly or indirectly by those discussions. It seems to me fitting, therefore, that I should inscribe the volume to you. In so doing, I wish to bear witness to the great service that the Council has rendered me in stimulating and guiding my studies of educational subjects, and in the formation of lasting friendships. *Esto perpetua.*

B. A. HINSDALE.

THE UNIVERSITY OF MICHIGAN,
January 15, 1896.

PREFACE.

In 1885 I published a volume of papers, mainly educational, under the general title of "Schools and Studies." These papers were selected from a much larger number written in the years 1870-1885. Here I publish a similar selection from essays and addresses written during the last ten years, under a title that fits almost as loosely. Many of them have been already published in some form, but not all. In preparing them for this volume, some have been abridged and some expanded, while all have been more or less revised in style. A single paper — the one that heads the column — has been written for the volume. The earlier volume was sent out in the hope that, in this time of great educational activity, it might serve a good purpose. That hope is now expressed anew.

My thanks are given to the editor and publishers of "The Educational Review" for permission to reprint the papers that are credited to that publication.

B. A. H.

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STUDIES IN EDUCATION.

I.

SOURCES OF HUMAN CULTIVATION.

NO other transformation that men are permitted to witness is so marked in character as the transformation wrought in the mind of one of their own number in his passage from feeble infancy to the maturity of adult life. No other is so interesting, so important, or so necessary to be understood. The seed and the plant, the egg and the bird, are not to be mentioned in comparison. Only one transformation that history presents to our view is worthy to be compared to it, and that is the analogous transformation seen in the life of a tribe or a society of men as it passes from low savagery to high civilization. The causes that effect this transformation in the individual man I propose to examine, offering also some remarks on the transformation itself. In other words, I am about to map out the territory covered by the phrase, "Human Cultivation."

It is first to be observed that the subject presents difficulties that are in part insuperable. The cultivation of the individual begins in the mysterious region of infancy; and as no memory of what occurred in this region in our own case remains, and as the infant can give us no account whatever of his own experience, and would not be an infant if he could, we are thrown back upon our own observation for facts and our own interpretation of the facts observed. But such observation and interpretation

are peculiarly difficult. Facts of the spirit are the most subtile and elusive of all facts, and particularly those of the infant spirit. With great reason has it been asked:

Who can tell what a baby thinks?
Who can follow the gossamer links
By which the manikin feels his way
Out from the shore of the great unknown,
Blind, and wailing, and alone,
Into the light of day?
.
What does he think of his mother's eyes?
What does he think of his mother's hair?
What of the cradle-roof that flies
Forward and backward through the air?
What does he think of his mother's breast—
Bare and beautiful, smooth and white,
Seeking it ever with fresh delight—
Cup of his life and couch of his rest?
What does he think when her quick embrace
Presses his hand and buries his face
Deep where the heart-throbs sink and swell,
With a tenderness she can never tell?

But the fact that we are unable to answer these questions fully is no excuse for not making the best answer that we can. Let us then begin with the most elementary facts of the mental life.

The first of these is the mind itself. While we are unable to tell what the mind is, we readily discover some very interesting things about it. First, it is active, self-active as the philosophers say, and this activity is its characteristic attribute. Through its activity the mind grows or expands; or, to express the same fact in other language, it accumulates experience or gathers knowledge. The mind is one, a unit, and has no parts, but it acts in several different fields or spheres, or has a variety of experiences, and in this way its so-called

powers or faculties are developed. Again, the mind grows or acquires knowledge only through its activity. And still further, the mental growth or accumulation that comes in this way we call cultivation and education, using those terms in their broadest sense.

The mind cannot act, and so cannot grow, if it is left to itself. Mental activity depends upon stimulation or excitation, and this can come in the first instance only from the outside. An object to be known is as essential to knowledge as a mind to know. Accordingly, the second elementary fact to be considered is some reality external to the mind itself—what is sometimes called the world.

Perhaps some would pause here. But it will conduce to clearness to recognize a third fundamental educational condition. This is the mind and reality in contact. The speculative relation of the two factors we may leave to the metaphysicians; the practical fact of contact we must emphasize. Until such relation is established, there is no mental activity, and so no mental growth; the moment it is established, activity begins, and, progressively, the mind knows, objects are known, knowledge begins to exist, and education takes its rise.

Properly speaking, knowledge has no existence outside of the mind; it is a continuous state of mind; if mind should cease to know, knowledge would cease to exist.¹

¹ "But Casaubon's books, whatever their worth, were not the man. The scholar is greater than his books. The result of his labors is not so many thousand pages in folio, but himself. The 'Paradise Lost' is a grand poem, but how much grander was the living soul that spoke it! Yet poetry is much more of the essence of the soul, is more nearly a transcript of the poet's mind, than a volume of 'notes' can be of the scholar's mind. It has been often said of philosophy that it is not a doctrine but a method. No philosophical systems, as put upon paper, embody philosophy. Philosophy perishes in the moment that you would teach it. Knowledge is not the thing known, but the mental habit which knows. So it is with learning."—Mark Pattison: *Isaac Casaubon*, p. 488.

Men do indeed speak of books and libraries as containing knowledge. What books and libraries do in fact contain, is symbols of knowledge that are dead and meaningless until they are read by a mind that knows them. However, as usage justifies the objective sense of the word, and it is convenient, we may use knowledge in that signification.

The relation of knowledge to the mind may properly occupy our attention a little longer. That such a relation exists, men must have discovered the moment that knowledge became the subject of reflection, and they expressed the fact in the only way that was open to them. The relation is a philosophical idea, and they conceived it, as they conceived other philosophical ideas, under a physical image. The conception of knowledge is governed by the conception of the mind and is represented in the same way. Philosophy having, for reasons that are here immaterial, no vocabulary of its own, borrows one from physics and then proceeds to spiritualize it. Some examples of this process will emphasize the fact and also help on the general inquiry.

One of the earliest and best educational metaphors makes the mind an organism and knowledge food for its nourishment. Sometimes it is assumed to resemble a plant and sometimes an animal. This is the most common way of representing knowledge or doctrine in the Bible. The man who meditates in the law of the Lord is like a tree planted by the rivers of water that brings forth its fruit in its season. Disciples who have neglected their opportunities to learn have need of milk and not of strong meat. Every one that uses milk is a babe, while strong meat belongs to them that are of full age. The underlying idea is that of growth or development. As a new-born babe, the disciple should desire the pure milk of the word that he may grow thereby. The terms that are employed to

represent this view of education are considerably varied. The mind "hungers" and "thirsts"; it "digests" and "assimilates;" it is "nourished" and "strengthened," while the teacher "feeds" the pupil. It is in this way that the New Testament presents the relation of the minister to the church. He is a pastor or shepherd, and is enjoined to feed his flock. The metaphors that fall into this group may be called biological metaphors, as they are suggested by the phenomena of life.

A second group of pedagogical metaphors, almost as common as the biological ones, are derived from architecture. The mind is a structure or edifice that is "built," "constructed," or "formed"; knowledge is building-material; the teacher is an artificer, and his educational ideal is a plan or model. According to this conception, the mind has a foundation, apartments, stories, and windows (although this last metaphor is used also when knowledge is considered as light). This imagery is also of frequent use in the Bible. The terms "building" and "temple" are used to symbolize the Church and also the individual Christian. An Apostle likens himself to a "wise master-builder." Great stress is laid on "edification" and "edifying," or "upbuilding;" charity "edifies." The statement, "He that speaks (that is, in the church) edifieth himself" recognizes the pedagogical truth that to teach is an excellent way to learn—a truth that has been repeated times without number from ancient days.

Thirdly, mental growth is pictured in language that properly belongs to physical exercise; excitement of some kind stimulates a muscle or nerve to action, and this again stimulates nutrition. But this nutrition does more than simply supply the waste that activity has caused; the muscle or nerve is strengthened or enlarged.

The words "exercise" and "discipline," and even "activity" itself, fall into this category. Here we meet all the pedagogical metaphors that are furnished by the gymnasium and the playground. Very naturally, considering their peculiar genius, and especially their view of physical perfection, the Greeks made this a favorite mode of representing pedagogical facts and ideas, just as it was natural that the Latins, with their peculiar genius, should draw their educational vocabulary mainly from agriculture and war.

Warfare has made its contribution to the pedagogical vocabulary. "Drill" comes to us from this source, and so does "education" itself. This last means etymologically to "draw out" or to "lead out," and it was originally applied to physical acts merely. Thus, a soldier "educates" his sword from its sheath, and a general "educates" his army in battle array.

These are a few of the many pedagogical metaphors. There has been some discussion of the relative values of the several groups. The truth is that no analogical theory, nor all such theories together, exhaust the content of mind and education. These metaphors are but adumbrations of spiritual facts that we are unable to express fully. The mechanical analogies balance the biological ones, and *vice versa*; but the mind is neither a seed nor a building, or a combination of both; neither is the teacher a gardener or a carpenter, or half one and half the other. The pedagogical metaphors all present interesting phases or facets of the one grand process and result; they supplement and correct one another; but they present the mind as a kaleidoscope and not as a living unity. We may observe further that the English language, owing to its composite character, is particularly rich in pedagogical terms, so that the English-speaking teacher is able to look at his

work, through his own speech, from more points of view than any other teacher.

The causes of mental stimulation, and so of mental growth, are divisible into two great groups, the primary and the secondary.

I. THE PRIMARY GROUP.

These require, at the present stage of the discussion, no general characterization. They are divisible into three sub-groups.

1. *Facts of Nature; External Realities.*—Every material object presents to the mind one or more points of contact, and as soon as the mind seizes upon one of them that marvelous stream of activity which, at different stages and under different aspects, we call sensation, perception, conception, memory, apperception, thought, imagination, pleasure and pain, choice and volition, begins to flow. The child's first world, properly speaking, is neither external nor internal; he does not discriminate between his own body and the surrounding objects, and much less between his mind and such objects; all things are presented to him as one inseparable mass. Moreover, the child's first world is a very small world, embracing only the objects that lie within his ken. At the very first, he has no "ken"; he is blind and deaf, and merely feels; when he begins to see and to hear, he sees and hears things in close connection with his eyes and ears; and it is but slowly that he conceives the ideas of separateness, externality, depth, and distance. For his purpose the poet has chosen his objects well; still, the mother's eyes, hair, and breast, and the cradle-roof, as particular objects of knowledge, mark a considerably advanced stage in the child's mental life. I shall not seek to analyze the processes by

which the child's homogeneous world is gradually resolved into a heterogeneous one. My main purpose is to emphasize the fact that those material objects which are right about the child are the things that first fasten themselves upon his mind, and so are the first to be known. In the first stages of knowledge the child is wholly at the mercy of his environment, as much so as the whelp in the kennel or the cub in the jungle. Furthermore, this environment is for the most part predetermined; for the rest, it is controlled by the nurse, the mother, and other members of the family; at most, such selective power of objects as the child's own mind can assert is purely instinctive and spontaneous. How important an element such natural selection is, we have no means of knowing, but it is absolutely limited by the environment. It is worth remarking, too, that the influence of environment when the child-nature is soft and easily colorable is great, far beyond our power to measure it.

We will assume that the first objects to arrest a child's attention, and to be separated from the surrounding mass of objects, are his own hands. But they do not satisfy him. He reaches out to other and remoter things. Through every inlet and avenue sensations, which form the raw material of knowledge, are poured into his mind and are slowly elaborated into ideas. The child is an inductive philosopher. He learns his first lessons by observation, experiment, and reflection. Every circle that he makes about the room in his nurse's arms, every excursion beyond its walls, is an exploring expedition in the dark continent that shuts him in. Biting on his rubber, twisting the neck of his doll, beating the floor with his heels and the table with a spoon, he lays the foundation of his future scientific knowledge. Progressively, he comes into contact with further objects; he conquers the

yard, street, and field on his way to the conquest of the mountain, the sea, and the sky.

While we call the child's mental progress slow, it is really rapid considering all the factors that enter into the account. It would be immeasurably slower than it is, did not our first ideas assist us in acquiring later ones. As has been said, the child's "perceptions are not heaped up like dead treasures, but almost as soon as acquired they become living forces that assist in the assimilation of new perceptions, thus strengthening the power of apprehension. They are the contents of the soul, that now permanently assert themselves in the act of perception. For wherever it is at all possible, the child refers the new to the related older ideas. With the aid of familiar perceptions, he appropriates that which is foreign to him and conquers with the arms of apperception the outer world which assails his senses."¹

2. *The Acts of Men; The Objective Realities of Life.*—From the first the child is brought into contact with a second order of facts. These are the deeds of men, which, in due course of time, are discriminated from the movements of things and the actions of animals. Their distinguishing character, which, however, the child does not at first perceive, is that they express intelligence, feeling, and will. Further, the child discovers that some things he may do, and some things he may not do. This is not due to natural barriers, but to human barriers. He does not at first know the power of a will *as a will*, but only as a force; but progressively control, restraint, obedience, authority, law, rule, and government are learned as mere objective facts. They are but slowly separated from the analogous physical facts, and are never fully separated until the child has found the cause and the signification of social facts in the third group of primary realities.

¹ Dr. Lange: *Apperception*, p. 55.

3. *Facts of the Mind; Spiritual Realities.*—It is in the nursery and the home also that the child first meets the things of the spirit. Here it is that he learns those fundamental ideas of government and social relation that are afterwards developed in general society and in the state.

At some time the child begins faintly to discriminate between the cradle-roof and the nurse who rocks it. The time comes when he begins to see that his mother's breast, hair, and eyes are *not* his mother. He makes no account of definitions; he has no use for "matter" and "mind," "body" and "spirit;" but the elementary facts of rational existence begin to orb themselves in his consciousness. His own ideas and feelings interpret to him the ideas and feelings of others. Other minds are measured by his own mind. He may beat his hobby-horse and his nurse indifferently when they displease him; but this act, which originates in blind impulse and is strengthened by habit, nevertheless hastens a fuller discrimination of the two orders of being.

The child's higher education now begins in earnest. He has felt the power of spiritual realities. As he learns hardness by beating the floor with his heels; resistance, by bumping his head against the wall or door; strength, by breaking his toys; heat, by burning his hand; weight, by dropping a hammer on his toe, and sharpness, by cutting his finger with a knife: so he learns what intelligence, feeling, and will, order, right, and wrong, aversion, sympathy, and affection, are through contact with nurse, parents, brothers, sisters, and playmates. He discerns the spiritual elements that constitute authority and government, approval and disapproval, rewards and punishment, which before had been to him but objective facts. And not only are these ideas formed, but the institutions

that express them are in time duly recognized—the family, society, and the state.

The child finally becomes introspective and knows himself. On the basis of the natural consciousness, self-consciousness is developed. His ideas and feelings are realities that stimulate his mind and create new realities. The subjective becomes objective. Old thought becomes material for new thought. It is very true that the normal child develops slowly along this line. He first marks off his body from other objects. Then he distinguishes between his body and his mind, and learns the meaning of the word "self." Few are the persons who ever had or, at least, can recall such an experience as the one related by Richter. "On a certain forenoon I stood, a very young child, within the house-door, and was looking out toward the wood pile, as, in an instant, the inner revelation, 'I am I,' like lightning from heaven, flashed and stood brightly before me; in that moment had I seen myself as I, for the first time and forever."¹ But this revelation, when it comes, marks the next step in development, following the discrimination between the things of the body and the things of the spirit.

The baby new to earth and sky,
What time his tender palm is prest
Against the circle of the breast,
Has never thought that "this is I:"

But as he grows he gathers much,
And learns the use of "I" and "me,"
And finds "I am not what I see,"
And other than the things I touch.

So rounds he to a separate mind,
From whence clear memory may begin,
As thro' the frame that binds him in
His isolation grows defined.

¹ Quoted by Dr. Porter: *The Human Intellect*, p. 101.

The birth of self-consciousness marks the entrance of the child upon the third and last stage of primary education, in the present sense of that term. Its ethical importance is very great. Moral thoughtfulness now begins, feeble of course at first. Man communes with his own heart, and his spirit makes diligent search. He communes with his own heart upon his bed, and is still. He examines himself, whether he is in the faith.

The three groups of facts that have just been described are the primordial sources of human cultivation. With them the education of the race began. With them the education of every member of the race begins. In both the general sphere and the individual sphere, they antedate teachers and schools and education as those terms are commonly understood. It can hardly be too much insisted upon that, in direct attrition between the mind and nature, human society, and the mind itself natural knowledge, moral knowledge, and philosophical knowledge originate. Man's cultivation can never begin with books and libraries. Both history and personal experience tell us that there is an earlier culture; a culture derived from the earth, the sky, and the sea, the family, the camp, and the market-place, and from communion with the thoughts and intents of the heart. There are secondary sources of cultivation, which we shall soon describe, but it is these primitive culture-elements that make them possible. Nicely to define the relations of the three groups of primary factors, or to measure their comparative value, is beside our present purpose. Three or four remarks will suffice.

The three groups appear in life in the order in which they have been presented. Still, they are all found in the child-mind from an early age, and from the time of their full appearance they run side by side through

his mental life. Their interaction is constant and powerful. They can be no more separated than cognition, feeling, and will can be separated in the stream of consciousness. They are not of uniform prominence in all persons, or in the same person in all periods of life. Some persons live in nature, some among men, some in their own minds. Children again live in their senses, adults in reason, the old in memory. The speculative man lives in thought, the sensitive man in his feelings, the practical man in his deeds. The three groups of factors have each their peculiar educational value; they cannot be made to take one another's place; and they are all essential to a well-ordered education.

II. THE SECONDARY GROUP.

The educational factors that we have been considering are powerfully reenforced by a secondary group. As men originally acquired knowledge through attrition with the primordial sources of cultivation, they began to communicate back and forth, and so became teachers one of another. In this way there grew up a common fund of experience or culture that has played a prodigious part in the education of the world. Tradition and authority appeared early, and henceforth second-hand, or derivative, knowledge supplemented first-hand, or primitive knowledge. These new agents may be divided into four sub-groups.

1. *Oral language*.—This stands first in power, if not in time. Speech is the most direct, the most complete, and the most rapid mode of conveying thought and feeling. The matter conveyed comes from one of two sources. One source is the speaker's own personal experience, the other the common fund or stock of experience that is called tradition. In the narrow sense tradition embraces facts,

rules of conduct, sage councils, generalizations of experience, old wives' wisdom, and prudential maxims that have been handed down by word of mouth through successive generations. Tradition in its large sense will come before us further on; here it should be remarked that the total effect of oral language upon men's minds and lives, they are quite incapable of estimating. No doubt it is less than formerly, owing to the multiplication of artificial substitutes for the memory, but in the first stage of life it has suffered no diminution.

2. *Arts and Inventions*.—Here we inventory the visible works through which man accomplishes his purposes (excluding only symbols proper and writing). These works range from the simple articles and utensils of common life to the steamship, the city, and the Simplon road. These objects are things, but they are more, since they express human thought and purpose.

3. *Symbols*.—Here we catalogue those works of art the direct object of which is to express thought, sentiment, or feeling: the decorative art of the savage, the illustrations of scientific and literary books, the Sistine Madonna, and the Parthenon frieze. Symbolism and the practical arts are often found mixed. The idea of beauty allies itself with usefulness.

4. *Writing*.—In this expression we include picture writing, hieroglyphics, and alphabets. It is a form of symbolism, but a form so unique in character, and so vast in its influence, that it well deserves to stand in a category by itself.

It is quite impossible to exaggerate the influence of writing and printing on the communication of thought, and particularly on education. "It is the greatest invention man has ever made," says Carlyle, "this of marking down the unseen thought that is in him by written

characters. It is a kind of second speech, almost as miraculous as the first."¹ And again: "Universities arose while there were yet no books procurable; while a man, for a single book, had to give an estate of land. That, in those circumstances, when a man had some knowledge to communicate, he should do it by gathering the learners round him, face to face, was a necessity for him. If you wanted to know what Abelard knew, you must go and listen to Abelard. Thousands, as many as thirty thousand, went to hear Abelard and that metaphysical theology of his. . . . Once invent printing, you metamorphosed all universities, or superseded them. The teacher needed not now to gather men personally round him, that he might *speak* to them what he knew: print it in a book, and all learners far and wide, for a trifle, had it each at his own fireside, much more effectually to learn it."²

Such in outline are the secondary sources of knowledge and mental discipline. The analysis might be carried further, but this one is comprehensive and will answer our purpose. The group suggests some observations of importance.

1. The first of these observations is that these last sources of cultivation are plainly secondary and derivative. They mean nothing and serve no useful purpose save as they rest upon a previous cultivation. Properly speaking they are all arts. What Professor J. S. Blackie says of books is true of all of them. "They are not creative powers in any sense; they are merely helps, instruments, tools; and even as tools they are only artificial tools, superadded to those with which the wise

¹ *The Hero as Divinity.*

² *The Hero as Man of Letters.*

prevision of Nature has equipped us, like telescopes and microscopes, whose assistance in many researches reveals unimagined wonders, but the use of which should never tempt us to undervalue or to neglect the exercise of our own eyes.”¹ A book is nothing but a thing to a child until he has accumulated a fund of first-hand mental experience that will furnish the apperceiving centers necessary to enable him to understand it, as well as mastered the symbolism of the printed page. The “parchment roll” is not

the holy river,
From which one draught shall slake the thirst forever.
The quickening power of science only he
Can know, from whose own soul it gushes free.

2. It has been suggested that a book is a thing before it is a book. This suggestion leads to the wider observation that arts of all kinds are at once tools for the doing of some work, and things or objects of study in themselves. As tools, they are secondary sources of knowledge and discipline; as things, they fall among the primordial factors. In this sense every art is also a fact of science. And the more important the art is, the more interesting as an object of knowledge. All the arts of communication are subjects to be studied. It may be said in general that the higher the purpose the art subserves, and the greater the amount of thought that it displays, the more interesting and valuable it is as a subject of study. And this is the reason why the things of the spirit, using that term in this wide sense, rank so high as educational instruments. This is the core of Humanism. Still more, it is only as an art or instrument is understood that it becomes significant and in the highest degree useful.

¹*Self-Culture*, p. 1.

Thus, the primary and the secondary elements of teaching mingle. Even the most mechanical of the mental operations are not wholly mechanical.

Still more stress should be laid upon the educational value of spiritual realities. We observe objects and form ideas of them. These ideas are merely pictures or images of things, in the first instance. But this is not all; they become themselves objects of study, furnishing the richest thought-material.

3. Once more, thought is before expression, and is its cause. But the connection between the two is the closest that we can conceive. Shunning the intricacies of this old problem, we should not fail to remark that, practically, the mind and language are inseparable. They strengthen or weaken one another. Neither one can be studied in a fruitful way without the other. If we begin with thought, we find ourselves attending to its vesture; if we begin with language, we cannot dismiss its content. "Speech," says Sir William Hamilton, "is the godmother of knowledge." "A sign is necessary to give stability to our intellectual progress—to establish each step in our advance as a new starting point for our advance to another beyond. A country may be overrun by an armed host, but it is only conquered by the establishment of fortresses. Words are the fortresses of thought. . . . Language is to the mind precisely what the arch is to the tunnel. The power of thinking and the power of excavation are not dependent on the word in the one case, on the mason-work in the other; but without these 'subsidiaries, neither process could be carried on beyond its rudimentary-commencement."¹ Still another great scholar has said: "The human mind has never grappled with any subject of thought without a proper store of language, and without an ap-

¹*Logic*, Lecture VIII.

paratus appropriate to logical method."¹ The closeness of the relation that we are remarking is shown by the fact that the same word often means content and expression, as *logos*, "speech," and "word" itself. The New Testament places great stress upon the Word, but the word is the doctrine. These reflections show very clearly that the primary and secondary facts of mental growth are so bound up together that they cannot in reality be separated.

4. The order in which the secondary factors appear in history, is also the order in which they appear in the life of the child surrounded by civilized society. We must, however, be on our guard against two mistakes. We may exaggerate the length of the intervals between the several factors of the secondary group, and also their time relations to the primitive group. We must not divide life into sharply-cut periods. Something depends upon aptitude, and something upon circumstances. Perhaps it is misleading to speak of intervals at all. All that is meant is that, in a general way, the analysis presented describes the historical order and the individual order in which the sources of human cultivation declare themselves. The important facts are these: In the normal child, all these agencies appear early, and they continue to act upon him side by side as long as he lives. They strengthen one another; they interact in a manner that defies analysis. Often it is difficult or impossible for one to tell in his own case, and still more in the case of another, from what source certain knowledge was derived. Persons differ, owing to personal character and environment. The human voice is sound before it is speech. A volume is first a thing, then a book. Art does wonders in substituting one sense for another, as in the case of Laura Bridgeman,

¹Sir H. S. Maine: *Ancient Law*.

who could follow music by the sensations it produced in the bottom of her feet. Similarly, one man learns by conversation, by reading a book, or by looking at a picture what another gets by the direct use of his senses. Still, there is a limit to this substitution in both cases. Every sense and every educational agent has its own appropriate function that no other sense or agent can fully discharge. A man blind from birth may learn the whole color vocabulary, but he can have no conception of its meaning. The appropriate sense must always furnish a starting-point from which the mind may work through the other senses in the direction of substitution. Similarly, language, writing, and pictures can never take the place of a suitable grounding in the primal realities of sense and of the spirit. This fact must not be obscured. No human being's cultivation ever began with words of wisdom. The library is a sealed book save to him who already possesses the keys of knowledge. The command to keep out of the fire is significant only to those persons who have already learned by experience what the fire is. In this primal sense, therefore, the education of all men starts at the same place and proceeds by the same steps.

5. The field where primary and secondary knowledge overlap is a wide one; within that field each kind has its own points of advantage and disadvantage. In general, first-hand knowledge is the more real and practical. Seeing is believing. All our terms of cognition, or nearly so, go back to the senses. Another's report of a fact or event may be as valuable practically as my own personal examination, or even more so, as in the case of expert knowledge, but speculatively the report never affects me in the same way. No man's description of Niagara or Mont Blanc equals the use of my own eyes. Second-hand knowledge, on the other hand, is commonly acquired far more rapidly and easily.

If knowledge of the glaciers of Alaska, or of Yellowstone Park, obtained from a book is less real and vivid than knowledge obtained by a personal visitation, it costs far less in time, money, and effort. It is impossible to imagine how the kingdom of knowledge would shrink up if men were thrown wholly back upon their own unaided faculties. As it is, the accumulations of the race are open to every man, limited only by his own power to receive and assimilate. We are sometimes enjoined never to tell a child anything that he can find out for himself. Taken as a rhetorical mode of emphasizing discovery or first-hand knowledge, the precept is well enough, but as a rule to be strictly followed it is both absurd and impossible. To leave the child to his own unaided efforts is telling the farmer of the Western prairies to throw aside his improved machinery and cultivate and harvest his crops with the rude implements used in Judea in the days of Boaz. Moreover, no man was ever reared in this way, or ever will be. Fortunately, the utter impracticability of the maxim, taken in its literal sense, leaves little probability that it will be abused. The sound rule is, Do not tell the child too many things. I wish to know the distance from Ann Arbor to Ypsilanti; why should I measure it myself so long as I can learn the distance from another? I do not need to measure the road to Ypsilanti, but I do need to measure enough distances to enable me to understand the process and to understand, measureably at least, the distance-units that are employed in making them. What I need in general is a sufficient stock of first-hand knowledge suitable to equip me with apperceiving centers, then I am ready for second-hand knowledge.¹

¹ "Learning teacheth more in one yeare than experience in twentie: And learning teacheth fafelie, when experience maketh mo miserable than wife. He hafardeth fore, that waxeth wife by

What has been said answers, in general, the question whether the study of elementary science should begin with a book or in a laboratory. The child must observe and experiment; but it is not wise to set him adrift in nature or in the laboratory. Much the same may be said of the teaching of law, whether it shall begin with cases or principles, be inductive or deductive.

6. The real point that is involved in the last paragraph may be stated more broadly. In the intellectual sphere, authority is the acceptance of facts, ideas, and judgments at second hand, on the ground of another person's real or supposed knowledge. The learner does not himself know the fact or idea in the primitive sense of that term. Authority, therefore, is opposed to personal knowledge or reason. There are two kinds, the first relating to facts and the second to judgments or opinions. The authority that rested so long, and so heavily, upon the mind of Europe, and that was shattered by the rise of free inquiry, while embracing both elements, placed the

experience. An vnhappy Maister he is, that is made cunning by manie shuppe wrakes: A miserable merchant, that is neither riche or wife, but after som bankroutes. It is coftlie wifdom, that is bought by experience. We know by experience it felfe, that it is a meruelous paine, to finde oute but a short waie, by long wandering. And furelie, he that wold proue wife by experience, he maie be wittie in deede, euen like a swift runner, that runneth fast out of his waie, and upon the night, he knoweth not whither. And verilie they be fewest of number, that be happy or wife by unlearned experience. And looke well vpon the former life of thosse fewe, whether your example be old or yonge, who without learning haue gathered, by long experience, a little wifdom, and som happiness: and whan you do consider, what mischeife they haue committed, what dangers they haue escaped (and yet xx. for one, do perishe in the aduenture) then think well with your felfe, whether ye wold, that your owne son, shoud cum to wifdom and happiness, by the waie of soch experience or no."—Roger Ascham: *The Scholemaster.*

emphasis upon opinion. It has often been contended that authority does not confer knowledge. Locke, for example, declared it to be "madness" to persuade ourselves that we see by another man's eyes, while Carlyle said: "Except thine own eye have got to see it, except thine own soul have victoriously struggled to clear vision and belief of it, what is the thing seen or the thing believed by another or by never so many others?"¹ We shall look more carefully into the matter in a moment; here the fact concerns us that both kinds of authority play necessary parts in human life. Opinion finds its sphere in practical affairs. Children must be guided by their seniors, and the uninstructed in general must depend for guidance upon those who are instructed. But opinion is commonly said to have been banished from science and philosophy, and largely so from religion. Into this branch of the inquiry we need not go; it suffices to state the proper sphere of opinion. The authority that is concerned with facts we call testimony, and its range is far wider than the range of opinion. We constantly accept facts at the hands of witnesses, taking pains only to satisfy ourselves as to their competency. This is essential to the progress of knowledge, and in fact to its existence in any comprehensive sense of the term. A material cause of the great progress in knowledge made in recent years is the wide range that has been assigned to testimony, accompanied by careful scrutiny into the character of witnesses. It is, therefore, only in a relative sense that authority has been discarded, or that it can ever be discarded, in the field of science.

Let us look a little more closely into the relation of authority to the knowing processes. In the narrowest

¹ See Quick: *Educational Reformers*, p. 222, 223.

sense, knowledge of things and events is purely a personal matter. The fact or idea that another person places in my way, as a parent bird puts a worm in the mouth of its young, or a boy drops a marble into his pocket, I do not know. I know it only when, through the facts and ideas that I have acquired for myself, I assimilate it and make it a part of my mental store. And even then it lacks something of the reality and vividness of primitive knowledge. Still we may agree with Mr. Quick in saying that Miss Martineau knew the comet which she did not see was in the sky. Not as much can be said of thinking. Using familiar speech, A convinces B of the truth of a proposition or of the value of a doctrine. In what sense does he do so? The operation is in no way like the operation of piling up weights in one scale-pan until the other kicks the beam. What A really does is to place before B facts and ideas that tend to excite in his mind a train of thought that will bring him to the desired conclusion. The thought is B's, not A's. In the real sense, therefore, every man who becomes convinced of a truth convinces himself. All that A can do for B is skillfully to select and to bring before him matter that compels him to do the thinking. This is due to a certain relation, spontaneous or artificial, that exists between A's mind and B's mind and the matter. The ultimate explanation of the process is found in what we familiarly call the constitution of the human mind. Now this element of thought or personal insight is wholly wanting when opinion or judgment is taken solely upon authority. The operation is mechanical on both sides. The practical result may be the same when a person is guided by authority that it is when he is guided by reason, but the speculative result is very different. Two men vote the same ticket at an election, one

ignorantly, the other intelligently; the one vote counts for as much as the other; but there is no comparing the mental relations of the two men to the transaction, nor to life as a whole, provided the present act is a type of their conduct.

But authority is intimately connected with tradition, and I have promised to say something more about that subject.

Facts and ideas at first hand are handed on from one man to another; opinion grows; thought accumulates; conjectures and explanations multiply; habits and usages spring up and become established; doctrines take root; laws and institutions are evolved; material civilization expands; an educational ideal is worked out—this, or something like it, may be accepted as a general account of tradition. As here used, tradition is coextensive with civilization, comprehending every human achievement that continues from generation to generation. The currently accepted educational ideal is the type to which society, or men as a whole, consciously and unconsciously, labor to make their successors conform. "The educational aim, we shall find, is always practical in the large sense of that word," says Professor Laurie, "for, even in its highest aspects, it has always to do with life in some form or other, and indeed presumes a certain philosophy of life." This aim or ideal is one of the most potent of realities, ranking, perhaps, next to nature itself as an educational agent. Through its causative energy, it tends to produce the national character. The first of the three stages through which Professor Laurie finds the educational ideal passing in its historical evolution, is "the unpremeditated education of national character and institutions, and of instinctive ideas of personal and com-

munity life in contact with specific external conditions, and moulding or being moulded by these.¹

Words can hardly exaggerate the formative power of tradition, taking it in this large way, upon the character and conduct of men. It dictates ways of living and habits of thought. It prescribes creeds and platforms. It becomes a practical measure of truth and duty. It is the cake of custom. It fixes the cycle of Cathay. In the large sense of those terms, it is the glass of fashion and the mould of form. But it tends to mechanism and uniformity. It runs to dryness and deadness. Often it becomes oppressive and tyrannous in the extreme, stifling originality and repressing fresh thought. Naturally, therefore, tradition calls out from the prophets of new ideas and causes their most vigorous protests. They demand to be informed why we also should not ascend to the head-springs of thought, feeling, and life. As Mr. Emerson voices this demand:

Our age is retrospective. It builds the sepulchres of the fathers. It writes biographies, histories, and criticism. The foregoing generations beheld God and nature face to face; we, through their eyes. Why should not we also enjoy an original relation to the universe? Why should not we have a poetry and philosophy of insight and not of tradition, and a religion by revelation to us, and not the history of theirs? Embosomed for a season in nature, whose floods of life stream around and through us, and invite us by the powers they supply, to action proportioned to nature, why should we grope among the dry bones of the past, or put the living generation into masquerade out of its faded wardrobe? The sun shines to-day also. There is more wool and flax in the fields. There are new lands, new men, new thoughts. Let us demand our own works and laws and worship.²

This is one side of the matter, and a very important side. But the other side is at least equally important.

¹ *Pre-Christian Education.--Introduction.*

² *Nature.--Introduction.*

Without persistence, men could never get forward. To keep strictly within our own field, tradition hands to us the existing educational type, and the materials out of which, for the most part, the type of the future will be fabricated. Some tell us that we should resort to civilization, and some to the nature of the mind, for our ideals; but there is good reason to think that the two directions are very much the same thing in substance, for certainly we may suppose that the civilizations of the most advanced nations are psychological. However that may be, man is in the midst of tradition, as he is of nature; and he might as well try to escape the influence of the one as of the other.

Still more, the materials of education must be largely drawn from the same source. Here we find realities, as well as in the natural world, and realities that are quite as important. The cry, "Back to nature!" "Back to experience!" important enough in its place, sometimes takes on the color of the ridiculous. The human tradition contains elements that have been assorted, tested, elaborated, and refined; first-facts and thoughts have become second-facts and thoughts: and so on in endless repetition. Why then should we always be going back to the beginning, if such a thing were possible? The demand that one shall do so—that he shall repeat in all things the experience of the race—is like saying to a man who wants a dinner that he must not sit down at the table that is already spread, or even go to the shops for prepared materials of which a dinner may be made, but that he must go to the forest for meat and to the field for bread.

III. SCHOOL STUDIES.

The topics that we have been considering are of great speculative interest. But this interest is not the main

cause of their being discussed in this place. My main object is practical, not scientific. I have been seeking a point of view from which we may profitably consider the selection of educational materials for the school. This is the question of educational values in its most practical sense, and it calls for thorough discussion at the present time in the light of fundamental doctrines. After what has been said, we shall not be long in coming to an answer.

First, the logic of life, to a great extent, settles the question. In its early stages mental growth is purely spontaneous; what the child shall first know is settled beforehand as conclusively as what he shall first eat. The secondary sources of cultivation cannot be made primary sources. The realities of spirit cannot be put before the realities of sense. Ratio and proportion are subject to change, but the main facts that concern us are fixed and immovable. And, considering the tendency of men to ride hobbies, to chase *ignes fatui*, to cultivate fads, this is a fortunate circumstance. Happily, the Creator has placed some things beyond the reach of experiment!

Secondly, when the child comes to school he has already acquired two precious possessions. One is a certain store of facts, ideas, images, and thoughts, and a certain emotional and moral development. This mental store has originated in ways that have already been explained, and that need not be recapitulated. The magnitude of the store, and the ratio of the elements, depend in part upon the child's bent of mind, but mainly upon his quickness of apprehension, his environment, and the tutelage of his associates. As a rule, we may assume that his different kinds of knowledge are fairly well balanced. The child's second possession is a store of language that is measurably adequate to express his present facts and ideas, and to

receive new ones. Here again we may assume that something like balance exists. Knowledge may be in excess of expression, expression in excess of knowledge; primary and secondary knowledge may not be well proportioned in all cases; but, generally speaking, we may suppose that the two facts measure each other. The teacher must take the child where she finds him, and face the question: What shall the course of instruction be? We may sum up the answer in the following terms:—

1. The child's mental development should continue along all the lines on which he has been moving from the day of his birth. While the school marks a new step forward in the child-life, it should not mark a violent change.

2. This mental development should embrace the two main factors that have been set forth, knowledge and expression. The time will come when language, as a means of expression, may fall behind thought, but not yet. Hence to enlarge the child's store of knowledge, and his means of receiving and conveying knowledge, are the two main duties of the primary teacher. Most fortunately, good teaching on either side will help on the other one. The motto should not be, "Words through things," or "Things through words," but "Words through things and things through words." But the things taught should embrace the realities of the mind as well as the realities of nature. At this point it is easy to fall into excesses. If the former fault consisted in placing undue emphasis upon words and literature, the fact does not extenuate the fault of overlooking the worth of the humanities.

3. All the sources of knowledge should be drawn upon in due measure, primary and secondary, and also the sub-groups into which each of these is divided. It is important

to remember that secondary knowledge ultimately depends upon primitive knowledge, and that it tends to formalism unless perpetually renewed. The primary pupil must be kept close to the realities of nature, and the advanced student often be led back to them.

Unfortunately, there are those who see great educational worth in the spores of plants, the roes of fishes, and the *exuviae* of insects who can find little worth in Plato's "Republic," Aristotle's "Politics," Milton's, poems, and Shakspere's plays.

4. As a rule the child will not bring with him to school the arts of the school. They must, therefore, be taught in the school. These are such as reading and writing, arithmetical computation, and drawing. They are tools with which the invention of man, not nature, furnishes us. They are instruments for the acquirement and impartation of knowledge. Reading and writing, in an eminent sense, are the means by which we acquaint ourselves with the best that has been known and said in the world, and so with the record of the human spirit. It may be that relatively the old school devoted too much time to teaching these arts, to the neglect of teaching subject-matter. Certain it is that little real knowledge can be taught through reading in the first stage, owing to the technical difficulties of the subject. But to teach the largest amount of knowledge in the shortest time is not the proper ideal. If that were the aim, we should not teach the language arts at all. The school looks to the future; and even if the child could acquire real knowledge more rapidly during his first school years if he neglected the two great arts of the school altogether, he finds himself richly repaid in the end for his temporary abstinence through the use that he makes of these incomparable instruments of education. The New school will make a mistake not less serious than

the one that it charges upon the Old school, if it relegates the language arts to a secondary place, leaving them, as it were, to be picked up by the way.

Viewing its history externally, we see that education has undergone numerous changes in respect to ideals, subject-matter, and methods. We may limit ourselves to the second of these three topics. The Greeks fed the minds of their children on their own incomparable literature. The Romans, when they had grown out of their pristine narrowness, studied the Greek letters. The Realistic Humanists of the Renaissance looked for thought-material in the form and substance of the ancient literatures. The Verbal Humanists laid the stress on the style and form of the same writings. The Natural Realists pleaded for nature. In our own times, some educators stand for science and some for the record of the spirit. These questions, while important, do not in my view touch the real root of the matter. We must not blind ourselves to the fact that there has been good education since the day that men first began to study and to teach. Perhaps good teaching has been much more abundant than we are apt to think. Too frequently our judgments rest on external features. One teacher may instruct orally, another use text-books; one may find his materials in nature, another in humanity; one may use science as his instrument, another mathematics or philosophy; but if they are all good teachers, they will impart knowledge, energize mind, and develop character. We need not take too seriously the flux of theory and practice. There is something in education that transcends theory—something that survives the flux of method—something that is permanent and living. This something is the constant element in education. It is the pupil's own free, intelligent, personal

effort to learn. If this be present, the absence of much else may be excused; if this be absent, the presence of all else only makes the failure the more conspicuous. What we should strive for, is this constant element in the cultivation of the individual. The smooth phrases now current, "normal development," "natural method," "nature studies," "new education," and the like, must not make us dead to its incalculable importance. Orpheus built his Thebes by playing on his flute. Teachers will never build theirs in a similar manner.

The greatest danger that threatens education to-day arises from the narrow and imperfect views of many of those who are engaged in educational work. How difficult it is for the specialist to keep his mind broad, free, and sympathetic, experience has fully shown. Teachers also are likely to be greatly influenced by their own scholastic tastes and interests. The trouble is that the specialist or the teacher is apt to take a part of the map of the mind, or of knowledge, for the whole map. This state of things is partly unavoidable. It has also its good side, for it tends to the generation of enthusiasm. But the laying out of courses of study and the supervision of schools should fall into other hands. Only those are fit for this responsible work who have caught a vision of the whole world of mind and of knowledge, and who have some just conception, not merely of parts, but also of the relations of the parts that blend in the one grand unity. The Greeks believed in balance or ratio. Proportion was a great word with them. "Nothing in excess," were the words of Solon. It is a lesson that many educators and teachers much need to learn.

II.

THE DOGMA OF FORMAL DISCIPLINE.¹

PROFESSOR REIN, of Jena, remarks in his "Outlines of Pedagogics" that the "fiction of a formal education must be given up. In general," he says, "there is no such education at all; there exist simply as many kinds of formal education as there are essentially different spheres of intellectual employment." Dr. Van Liew, Rein's translator and editor, explains "formal education," or "formal culture," as signifying "about the same as the vague expression 'discipline of the mind.' Its extreme defenders," he continues, "claim that the pursuit of classic studies renders the intellect capable in any sphere whatever; *i.e.*, it develops *all* the mental faculties. It is true that the study of a language renders the pursuit of other related branches easier; but it cannot be conceded that it prepares the mind directly for grasping other totally irrelevant subjects."²

On the other hand, the Committee of Ten, in its "Report on Secondary School Studies," assumes the correctness of the doctrine. The passages in which this assumption is made are so well known that it will suffice to quote a single one of them. "Every youth who entered college" [on the plan suggested] "would have spent four years in studying a few subjects thoroughly; and, on the

¹ A paper read to the National Council of Education, Asbury Park, N. J., July, 1894.

² Translated by C. C. and Ida J. Van Liew, p. 42.

theory that all the subjects are to be considered equivalent in educational rank for the purposes of admission to college, it would make no difference which subjects he had chosen from the programme—he would have had four years of strong and effective mental training.”¹ The Chairman of the Committee, it may be observed, had previously declared, speaking of the development of observation, that “it does not matter what subject the child studies, so that he study something thoroughly in an observational method. If the method be right, it does not matter, among the numerous subjects well fitted to develop this important faculty, which he choose, or which be chosen for him.”²

The views expressed by the Committee of Ten have not passed without protest. One member of the Committee, President Baker, uttered his dissent at the time.³ Dr. Schurman has since spoken of the Committee as falling victims to that popular psychology which defines education merely as the training of mental faculties, as though the materials of instruction were a matter of indifference. Education, he insists, is not merely a training of mental powers; it is a process of nutrition; mind grows by what it feeds on, and the mental organism, like the physical organism, must have suitable and appropriate nourishment.⁴

Dr. De Garmo has remarked that the sentence quoted above implies that the formal discipline we have heretofore ascribed to classics and mathematics may really be obtained in the study of anything, and that consequently it makes no difference what we study. This, he says, is seeking to correct an erroneous theory by making it universal.⁵

¹ Government Printing Office, p. 53.

² *The Forum*, December, 1892, p. 418.

³ See his Supplemental Report.

⁴ *School Review*, February, 1894, p. 93.

⁵ *Educational Review*. March 1894, p. 278.

The words that have been quoted from the several authorities reveal a wide divergence of view. It may be true, as one of the critics of the Committee of Ten observes, that no harm will follow from its theory so long as the rich programmes that it offers remain; still, the question is absolutely fundamental to the science of educational values and cannot be waved aside. If one subject is as good as another for the purposes of discipline, then the maxim "all is in all" must be taken in a sense that would have startled even Jacotot. Certainly such a theory, supported by the weight of authority that is behind it, may well claim the attention of any society or association of men whose *raison d'être* is the discussion of educational problems.

In the outset I may state the theory a little more definitely. Dr. De Garmo says it consists in "the idea that the mind can store up mechanical force in a few subjects, like grammar and mathematics, which can be used with efficiency in any department of life." That is, the process that formal discipline assumes may be likened to the passage of energy from the fires of the sun, first to vegetation, and then to the coal beds and subterranean reservoirs of oil and gas, whence it is again drawn forth to cook a breakfast, to warm a drawing-room, to light a city, or to propel a steamship across the ocean. This is the theory that we are to examine.

First, we may look into the analogous facts in the physiological sphere.—The result of physical activity—call it what we will—presents to our view two phases, one special and one general. The force engendered by any defined exertion of physical power is fully available for all like kinds of exercise, but only partially so for unlike kinds. Thus, the power or skill engendered by

driving nails can all be used in driving nails, but only partially in shoving a plane. In the intellectual sphere, the two corresponding facts are sometimes called training and discipline. Furthermore, the generic element may be still further analyzed. Activity tends, first, to invigorate the whole body—"to tone it up," as we say—and, secondly, to overflow into new channels lying near to the one in which it was created. For example, driving nails will energize the whole body to a degree, but the hand, the arm, and the shoulder to a much greater degree; and so it will prepare for shoving a plane or turning an auger far more than for kicking a ball or vaulting over a bar. The law appears to be this: in so far as the second exertion involves the same muscles and nerves as the first one, and, particularly, in so far as it calls for the same coördination of muscles and nerves, the power created by the first exertion will be available. In other words, the result is determined by the congruity or the incongruity of the two efforts.

Now, the contribution that any defined exertion makes to the general store of one's bodily energy is important. At the same time, the facts do not prove that a reservoir of power can be accumulated by any one kind of effort that can be used indifferently for any and all purposes. There is no such thing as a formal physical discipline. Energy created by activity flowing in one channel cannot be turned at will into any other channel. A boxer is not a fencer. A pugilist in training does not train promiscuously, but according to certain strict methods that experience has approved. Mr. Galton has undertaken to show that the genius of the famous wrestlers of the North Country is hereditary; but he has not undertaken to show that these wrestlers are also famous oarsmen.¹

¹ *Hereditary Genius*, Chap. xviii.

Secondly, we may touch for a moment on the relations of body and mind.—That such a relation exists—that psychic life has a physical basis; that the saints all have bodies—is admitted; but the nicer connections of body and soul have never been reduced to formulæ. The prudent Locke's maxim, *Mens sana in sano corpore*, is universally admired; it expresses, no doubt, a truth more or less general, and is a beautiful educational ideal. Still, we cannot deny soundness to many minds that have dwelt in unsound bodies, or claim mental soundness for all men having sound bodies. Many of the saints have lived in poor bodies, while many persons with good bodies have been far from being saints. Not even the wildest materialist, although he should hold that the brain secretes thought as the liver secretes bile, would pretend that physical activity and strength and psychic activity and strength can be put in an equation.

Thirdly, dismissing these analogous facts, we come directly to the mind itself.—We shall examine into the mutual convertibility of the different kinds of mental activity or power.

There is a constant relation between the three phases of mental action. Cognition, feeling, and will are not names of different states of consciousness, but names of different aspects of the same consciousness. They cannot be separated except in thought. The three elements mingle in the full stream of mental activity from the moment that the stream begins to flow. The annihilation of one is the annihilation of all.

Within certain limits, these elements seem to vary together; outside of those limits, they tend to inverse variation. Mr. Darwin has told us with charming frankness, and in words bordering on pathos, that his own exclusive

absorption in scientific study had destroyed the feelings of wonder, admiration, and devotion which lie at the root of religious experience, and also robbed him of the pleasures which he had once received from poetry and art. Late in life he wrote that the most sublime scenes had become powerless to cause the conviction and feeling to arise in his mind that there is more in a human being than the mere breath of his body, which had filled and elevated it when, a young man, he stood in the grandeur of a Brazilian forest.¹ He speaks of his mind as having become "a kind of machine for grinding general laws out of large collections of facts," and says he cannot conceive "why this should have caused the atrophy of that part of the brain alone on which the higher tastes depend."² Shakspeare perfectly understood, what modern psychology explains, that the native hue of resolution becomes "sicklied o'er with the pale cast of thought," and that enterprises of great pith and moment are thereby turned awry and lose the name of action. Hamlet had thought too much to kill the king; and many a man of the closet—many a speculative thinker—has undergone a like disintegration of practical character, although he may have had no purpose to commit a similar deed. It is therefore perfectly obvious that there is no such thing as formal mental discipline, in the broadest sense of the language.

Narrowing the field again, we come to the intellect. Now our question is the mutual convertibility of the different forms of intellectual activity, and we must proceed more slowly.

1. These forms are much more closely connected than the old psychologists thought. They indeed taught that

¹ *Life and Letters*, Vol. I p. 281.

² *Ibid.*, Vol. I, p. 81.

representative knowledge is conditioned upon presentative, and that thought is conditioned upon both presentation and representation; but they did not teach how deeply the processes summed up in the word "thought" enter into perception. There is perhaps no form of cognitive activity that is pure and simple. These propositions do not need to be argued. At the same time, the cognitive elements do not vary together. Perception, memory, and imagination are not convertible terms; neither is any one of these faculties, in a concrete case, the measure of any other. We find the strangest combinations of intellectual power in real life. The savage is as weak in speculative reflection as he is strong in keenness of scent. The Realists have deservedly emphasized the value of sense-perception and of sense-teaching in education; but they have not emphasized the facts that the particular and the concrete mark an early and imperfect stage of mental advancement, that there is no greater clog upon mental progress than the habit of *thinging it*, and that a man's thinking capacity is gauged by his power to think general and abstract thoughts. Children and savages—all immature minds—live in their senses; cultivated men grow out of them. That is a significant anecdote which Dr. Fitch relates of the teacher who was testifying before Lord Taunton's Commission as to the extraordinary interest which his pupils took in physical science. Asked what department of science most interested his scholars, he replied: "The chemistry of the explosive substances."¹

2. "Habits of observation" and "men of observation" are phrases often heard. We may well inquire how far such language is true.

It is well known that some persons keenly notice faces, some actions, some attire, some manners, some language;

¹ *Lectures on Teaching*, Chapt. XIV.

also that some persons are closely observant of several classes of phenomena. There is, however, no formal power of observation. The Indian's boasted faculty is limited to his native environment; introduced into Cheapside or the Strand, he sees nothing compared with Sam Weller or one of Fagin's pupils. Nor can any exercises be prescribed that will cultivate an all-around observation. The inductive logicians lay down rules for conducting observations and experiments; as, That they must be precise, That the phenomena must be isolated, etc.; and very good rules they are. But they do not constitute a proper *organon* of observation. The words of Dr. Sully remain true, that there are no rules of good observation which would enable one to teach it as an art. More will depend, he says, upon daily companionship with an acute observer than upon systematic training.¹ Still, in such case the senses of the pupil will generally take the direction of the senses of the acute observer.

3. Next come the faculties of representation. Unusual powers of memory are so far from implying unusual understanding that, according to a prevalent opinion, the two are irreconcilable. Some writers have thought it necessary to refute that view. We need not canvass the question here further than to remark that good understanding is more frequently accompanied by good memory than good memory by good understanding. Still further, memory exercises are quite as limited in their effects as observation exercises. One person has a memory for names, a second for places, a third for faces, a fourth for dates and statistics, a fifth for ideas, a sixth for language, etc.; some combine two or more of these gifts; but there is no memory that takes up everything indifferently.

What has been said of the memory is equally true of

¹*Outlines of Psychology*, p. 214.

the other great representative faculty. There is the imagination of the philosopher, of the artist, and of the man of affairs, with their several subdivisions.

4. Finally, we come to the logical faculty, which is supposed to be the very seat and shrine of formal discipline. Here the facts are not different from those already presented. Ability in formal logic is not the same thing as ability in real logic, as the Schoolmen made very plain. Deduction is not induction. Mastery of the method of difference, sometimes called the chemical method, does not equip one for investigating the affairs of human society. On the other hand, it is often said, and with perfect truth, that constant use of the more rigorous methods of science tends to unfit men for dealing with human questions. No curious observer can fail to notice how practical ability to judge and to reason tends to run in special channels. The tendency is most striking in specialization. Eminence in microscopy, in sanitary science, in engineering, in philology, in pedagogy, in a thousand specialized pursuits, is no guarantee of ability in other matters, or even of good sense in the common affairs of life. The only astrologist whom I have ever happened to know personally was an eminent civil engineer.

Every person who has attempted to make up a course of popular lectures by drawing upon the professional talent of the vicinage, knows how hard it is to draw the professional man out of his *Fach*. Often the lawyer's unwillingness to appear in such a capacity is due to his consciousness of his own limitations. Again, the notion that the lawyer is especially fitted for the work of legislation by his technical knowledge of the law, is a common fallacy. His mind is trained in the law as it is; and he naturally shrinks from changes that will necessitate new adjustments of his ideas and modifications of his practice.

After remarking that it is hard for the modern reader to comprehend how men who reasoned upon their data with the force and subtlety of the Schoolmen could ever have accepted such data, Lord Macaulay proceeds as follows:

It is the same with some eminent lawyers. Their legal arguments are intellectual prodigies, abounding with the happiest analogies and most refined distinctions. The principles of their arbitrary science being once admitted, the statute-book and the reports being once assumed as the foundations of reasoning, these men must be allowed to be perfect masters of logic. But if a question arises as to the postulates on which their whole system rests, if they are called upon to vindicate the fundamental maxims of that system which they have passed their lives in studying, these very men often talk the language of savages or of children. Those who have listened to a man of this class in his own court, and who have witnessed the skill with which he analyzes and digests a vast mass of evidence, or reconciles a crowd of precedents which at first sight seem contradictory, scarcely know him again when, a few hours later, they hear him speaking on the other side of Westminster Hall in his capacity of legislator. They can scarcely believe that the paltry quirks which are faintly heard through a storm of coughing, and which do not impose on the plainest country gentleman, can proceed from the same sharp and vigorous intellect which had excited their admiration under the same roof and on the same day.¹

It is well known that Lord Erskine, the peerless advocate at the bar, proved a disappointment in the House of Commons.

Thus, we see that, no matter what mental activities we consider, they conform to the causes that excite them. Like the dyer's hand, the mental faculties are subdued to what they work in. There is no such thing as activity *in vacuo*. An incisive writer has said:

The circumstantial evidence with which lawyers, *qua* lawyers, are familiar under our system of jurisprudence, is an artificial thing created by legislation or custom, with the object of prevent-

¹ *Boswell's Life of Johnson.*

ing the minds of the jury—presumably a body of untrained and unlearned men—from being confused or led astray. Moreover, they are only familiar with its use in one very narrow field—human conduct under one set of social conditions. For example, a lawyer might be a very good judge of circumstantial evidence in America, and a very poor one in India or China; might have a keen eye for the probable or improbable in a New England village, and none at all in a Prussian barrack. . . . A wild Indian will, owing to prolonged observation and great acuteness of the senses, tell by a simple inspection of grass or leaf-covered ground, on which a scholar will perceive nothing unusual whatever, that a man has recently passed over it. He will tell whether he was walking or running, whether he carried a burden, whether he was young or old, and how long ago and at what hour of the day he went by. He reaches all his conclusions by circumstantial evidence of precisely the same character as that used by the geologist, though he knows nothing about formal logic or the process of induction. Now, what Dr. — — would have us believe is, that he can come out of his study and pass judgment on the Indian's reasoning without being able to see one of the "known facts" on which the reasoning rests, or appreciate in the slightest degree which of them is material to the conclusion and which is not, or even to conjecture whether taken together they exclude the hypothesis that it was not a man but a cow or a dog which passed over the ground, and not to-day but yesterday that the marks were made.¹

Perhaps it will be objected to the line of argument followed that it assumes the truth of an obsolete psychology. The change of front of psychologists at this point, Höffding thus suggests:

As classification, in the provinces of zoölogy and botany, led to the notion of eternal and unchangeable species—so that it now costs a hard struggle to furnish proof that these species are the fruits of a natural course of evolution—so psychological research for a long time thought its end had been attained when it reduced the various inner phenomena to various "faculties" of the mind—a procedure which conflicted strangely with the strictly spiritualistic conception of the unity of the mind. At the same time, these

¹ *The Nation*, November 16, 1876, pp. 296-297.

"faculties" were regarded as causes of the phenomena concerned, and thus the need of a causal explanation was satisfied in a very convenient, though quite illusory, manner. In particular it was overlooked that in classification attention is given only to a prominent characteristic; that it is not therefore actual concrete *states* themselves which are classified, but the *elements* out of which a closer examination shows them to be formed. There is scarcely a single conscious state—as will be shown later in detail—which is only idea, only feeling, or only will.¹

I am not about to attempt the rehabilitation of the much derided "faculty" psychology. It cannot be denied, however, that, with all its defects, this psychology did furnish a convenient mode of describing mental phenomena. But, no matter what psychology we adopt, the phenomena of the individual mind cannot be explained, so far as appears, on the theory of the correlation of forces.

Next in order come some remarks and applications of the principles stated.

1. What has been said of physical activities may be repeated of psychic activities. They present to our minds a specific and a generic phase. Any defined intellectual exertion, besides generating power that is subject to draft for like efforts, also tends to energize the intellect and, to a degree, the whole mind. This overflow of power—this mobilization of the mind, if we may so call it—is an important factor in psychic life. It furnishes the dogma of formal discipline its only support. How strong this support is, we cannot say in quantitative terms; but certainly it is far from sufficient to uphold the dogma as commonly understood.

2. The last remark suggests the harmonizable quality

¹ *Outlines of Psychology*. Translated by Mary E. Lowndes. p. 19.

—the congruity or incongruity—of mental activities. This subject belongs to the psychologist; but a related one, which has even more practical importance, belongs to the pedagogist. Reference is now made to congruity as a principle to be employed in the classification of studies. The first question is: What studies are congruous and what incongruous? And the second one: How far should the principle of congruity be followed in the choice of studies and in their arrangement? The two subjects of congruous mental activity and of congruous studies call for a fuller investigation than they have ever received.

3. Even this cursory survey would be inadequate without mention being made of two topics that receive large attention at the hands of teachers and educational writers. Certain arts were long ago called liberal (*artes liberales*) because they were supposed to liberalize the mind; that is, set it free from its ignorance, narrowness, and prejudice. This claim was well founded. In time, however, a liberal education came to be understood as a general education, in contradistinction to one that is special. The phrase now conveyed the idea of extent rather than quality of study, and such appears to be its present acceptation. But it is almost needless to remark that liberal study, and particularly as pursued in colleges and universities, is possible only in a relative sense. There must be a definite limitation of the field if we are to secure thoroughness and efficiency. Men cannot now take all knowledge for their province. But this is not all. Good specialization must also attain a certain breadth. A Greek scholar must study Latin; an English scholar, German; a physicist, mathematics; a pedagogist, psychology, logic, and ethics. Over-specialization, like too wide general study, defeats itself. The adjusting of the two factors, extension and intention, is a problem as difficult as it is

important. At one stage they vary directly; at another stage, inversely. Liberal culture is but a broader specialization; specialization, but a narrower liberal culture.

4. The only practical reason for discussing formal discipline in this place is that it involves studies and courses of study. The first question relative to the educational value of any subject is: What kind of mental activity does it stimulate? This question reaches much further than is commonly supposed. If the subject is said to develop the faculties of observation, then we must ask: Observation in what direction? In the direction of nature, or of man? And, if the answer is nature, then the question is: What department of nature? The same analysis must be made in respect to memory, imagination, comparison, judgment, and thought. But this is not all. Because a subject develops the kind of activity that is desired, we are not therefore at once to assign it a place in the curriculum. The quantitative question is hardly less important, *viz.*: How much activity does the subject stimulate? Even the most worthless subjects have some educational value; and we cannot assign any subject its place until we have compared it with others in respect to the measure of the effect that it produces.

5. Applying these criteria to leading studies, we have no difficulty in seeing that their ardent cultivators often claim too much for them. The partisans of scientific education claim that the sciences stimulate strongly all the intellectual faculties. We must admit the claim. This, however, does not cut us off from asking what channels the observation and comparison, analysis and thinking, run in. Mr. Todhunter repels the claim that the natural sciences "are eminently and specially salutary as a means of developing the powers of observation." He argues that "the study of any subject tends to make men observ-

ant of the special matter of that subject; the study of botany doubtless trains the habit of observing botanical phenomena; the study of chemistry doubtless trains the habit of observing chemical phenomena. But I have never noticed," he says, "that the devotion to any specific branch of natural history or natural philosophy has any potent influence in rendering the student specially alive to phenomena unconnected with the specific pursuit. I could give some striking examples to the contrary."¹ Unfortunately, Mr. Todhunter did not generalize the principle that underlies his very just remarks. It is the principle of specific and generic products of mental activity. It is the principle to which Rein goes counter when he says in words that are somewhat over-strong: "There exist simply as many kinds of formal education as there are essentially different spheres of intellectual employment." But, still more unfortunately, Mr. Todhunter prefers claims for mathematics that are quite as absurd as those that he repels in the case of natural science. In their own field the mathematical sciences are invaluable, both as disciplines and as tools; but no field is more closely limited or more definitely marked off.

All-in all, language is the greatest educational agent that we possess. First, it is the content or substance of thought. It holds much of the accumulated cultivation of our race. Secondly, we master it as a tool for the expression of our own thought, and this is inferior to no other discipline that we are capable of receiving. Thirdly, when we become scholars we study language as the form of thought, or as grammar; and here we deal with some of the broadest and most abstract relations that ever receive our attention. Language appeals to us also under

¹ *The Conflict of Studies*, p. 23.

its historical aspect, under its comparative aspect, and, finally, as one of the noblest, if not indeed the noblest, of all the arts. But great as is its educational value, you cannot adequately educate a child merely by teaching him language.

This is an outline merely of the subject of this paper. I shall now sum up the principal ideas that have been advanced in the course of the argument.

The power generated by any kind of mental activity must be studied under two aspects, one special and one general.

The degree to which such power is general depends upon the extent to which it energizes the mind, and particularly the extent to which it overflows into congruent channels.

Such power is far more special than general; it is only in a limited sense that we can be said to have a store of mobilized mental power. In a sense, men have perceptions, memories, and imaginations rather than perception, memory, and imagination.

While liberal study and specialization look to somewhat different ends, they are, in fact, only parts, and necessary parts, of the same thing.

No one kind of mental exercise—no few kinds—can develop the whole mind. That end can be gained only through many and varied activities.

No study—no single group of studies—contains within itself the possibilities of a whole education. That balance of development which we should call a liberal education can be gained only through a measurably expanded curriculum.

A few words in relation to the genesis and permanency of the doctrine of formal discipline will fitly close the

paper. That doctrine is a survival from the days of Scholasticism. Those days were the halcyon period of formal studies. Formalism, which rests upon the machine tendency of the human mind, then gained a hold which four centuries of real studies have not sufficed to throw off. In truth, the downfall of Scholasticism was due primarily to an agent that, in one way, perpetuated its power. Humanism brought such intense relief to the minds of men, long starved upon merely logical elements, that it became the badge of a new servitude. The Greek and Latin literatures took possession of cultivated minds. The classical tradition was established, and it soon became the most powerful educational tradition that the world has ever seen. As the classical cultures were not vernacular cultures, the schools were necessarily made engines for teaching foreign languages. Admire as we justly may the classical chapter in the history of human cultivation, we cannot deny that there grew up a classical formalism which was only less tyrannous than the old scholastic formalism had been. When the new regime came to be challenged, its devotees cast about them for means of defense. Unconsciously borrowing from the scholastics the formal idea, they poured into it the notion that the classics have an exclusive, or an almost exclusive, educational value; because, as alleged, they alone furnish that liberal or general culture which, relatively speaking, must form the basis of complete education. Knowledge, content, substance, mental nutriment, were relegated to a secondary place. It became the business of teachers to "discipline" minds; which, indeed, is true enough if the matter is rightly understood. This tendency went so far that knowledge, thought, ideas, had little to do with fixing a man's place in the intellectual world. The supreme question was whether he had read certain books,

and not whether he was a man of real cultivation. This exaggerated claim has at last been cast off. Greek and Latin have been relegated to their own proper place as educational powers; but, most unfortunately, the conception of formal discipline, which was the joint product of the scholastic and the humanistic minds, still remains somewhat to vex our peace.

III.

THE LAWS OF MENTAL CONGRUENCE AND ENERGY APPLIED TO SOME PEDAGOGICAL PROBLEMS.¹

HE nouns "congruence" and "congruity," and the adjectives "congruent" and "congruous," are derived from the Latin verb *congruere*, which means *to come together with something*, and so *to agree*. The nouns mean suitableness, appropriateness, consistency, agreement, coincidence, correspondence, fitness, harmony, and the adjectives mean pertaining to or having this quality. The words have respect to relations, and they are favorites with those philosophers who place virtue in the fitness of things. For men to render obedience to God, or for a son to honor his father, is said to be congruous to the light of reason. "Incongruence" and "incongruous" are the negatives of these words. Congruence may be affirmed of physical things alone, of psychic things alone, or of physical and psychic things taken together. The element of time is involved. Congruence is simultaneous or successive. If successive activities are congruous, the first flows naturally into the second and they blend; the first leaves the body or the mind, as the case may be, in a suitable frame to enter upon the second. Particular attention may

¹ The Report of the committee on Pedagogics, submitted to the National Council of Education at Denver, Col., July, 1895. The report has been somewhat expanded in preparing it for this volume. It will be seen that, in some degree, this paper and the preceding one overlap.

be directed to this point, because the argument of this paper will turn in large part upon the relations of successive psychic states.

First, we may glance at bodily activities as congruous or incongruous.—It is obvious that congruence must be affirmed of some physical activities, incongruence of others. No reference is here made to organic functions. Walking is a good preparation for leaping, wielding a hammer for shoving a plane. But violent exercise disqualifies the muscles or nerves for any activity that requires careful handling or delicate touch. The surgeon could not qualify himself for a difficult operation by first engaging in the vigorous exercises of the gymnasium, nor the painter fit himself for putting the last touches to a fine picture by crushing stones with a sledge. No more does the skillful teacher place the writing or the drawing lesson just after the school recess. We need not dwell upon the laws that underlie these facts further than to say, that congruent exercises appear to involve, in whole or in part, similar coördinations of the muscles and nerves and similar physical tones.

Secondly, we may speak of bodily and psychic states as congruous or incongruous.—That certain correlations exist between the body and the mind is too plain to be disputed; also certain oppositions or antagonisms. Mental power and tone depend upon physical power and tone, while states of mind influence states of body. Repose of body conduces to reflection, meditation, or musing. Strong physical exercise tends to exclude vigorous mental exercise. Still there are obvious limits to these effects. The Greeks laid stress upon maintaining balance or proportion between the body and the soul, but their great athletes and their great writers or orators were different

classes of persons. Aristotle has left two striking testimonies relative to this subject: "The evil of excessive training in early years is strikingly proved by the example of the Olympic victors; for not more than two or three of them have gained a prize both as boys and as men; their early training and severe gymnastic exercises exhausted their constitutions." "Men ought not to labor at the same time with their minds and with their bodies; for the two kinds of labor are opposed to one another, the labor of the body impedes the mind, and the labor of the mind the body."¹ This is largely true, and the truth has important pedagogical applications, as to the question whether students as a class can carry on successfully the work of the classroom or the laboratory and of the shop or field at the same time.

Thirdly, the primary psychic elements as congruous or incongruous.—Cognition, feeling, and will are present in every fully developed state of consciousness. Dr. Dewey calls them "the three aspects which every consciousness presents, according to the light in which it is considered; whether as giving information, as affecting the self in a painful or pleasurable way, or as manifesting an activity of self. But there is still another connection. Just as in the organic body the process of digestion cannot go on without that of circulation, and both require respiration and nerve action, which in turn are dependent upon the other processes, so in the organic mind. Knowledge is not possible without feeling and will; and neither of these without the other two."² This is very well as far as it goes, but it does not tell us whether the three elements are all present in the first or simplest state of consciousness.

¹ *The Politics*, VIII: 4; translated by Jowett.

² *Psychology*, pp. 17-18.

The further relations of the three elements are of the greatest interest, and must be considered more carefully. Two facts are easily observable. One is that up to a certain point the three elements vary directly; the other is that beyond this point they vary inversely. Until the mental current reaches a given height, cognition, feeling, and will swell together; that point reached, any one of the three must swell at the cost of one or both the others. Höffding, who does not, however, generalize them into a single law, presents these interesting facts:—

Self-observation reveals at most only an approximation to a state in which all cognitive elements have vanished. Such an approximation is reached, the more the strength of the feeling-element increases. Cognition and feeling must thus stand in inverse relation to one another; the more strongly the one is manifested, the less the strength at the command of the other. An overwhelming joy or sorrow may drive out all ideation, all recollection; but an ecstatic condition of this kind stands on the margin of consciousness. . . .

It is only in the course of psychological development that differentiation between feeling and will makes its appearance. There comes to be an even greater contrast between the two ways in which inner movement finds a vent. The psychological importance of the law of persistence of energy is here seen plainly, for the more energy an individual expends on the one kind of reaction, the less can be expended on the other. This truth is strikingly illustrated in Saxo's well known tale of the different effect which the news of the murder of Regner Lodbrok produced on his sons: he in whom the emotion was weakest has the greatest energy for action.¹

This subject is one to which Dr. Sully does the fullest justice. Dealing with the opposition between knowing, feeling, and willing, he says:

These three kinds of mental state are, as we have seen, in general clearly marked off from one another. A child in a state of

¹ *Outlines of Psychology.* Translated by Mary E. Lowndes. pp. 98-99.

strong emotional excitement contrasts with a child calmly thinking about something, or another child exerting his active powers in doing something. If we take any one of these aspects of mind in a well-marked form, we see that it is opposed to the other aspects. Thus strong feeling is opposed to and precludes at the time calm thinking (recollecting, reasoning), as well as regulated action (will). Similarly, the intellectual state of remembering or reasoning is opposed to feeling and to doing. The mind cannot exhibit each kind of phenomenon in a marked degree at the same time.

This opposition may be seen in another way. If we compare not different states of the same mind, but different minds as a whole, we often find now one kind of one mental state or operation, now another in the ascendant. Minds marked by much feeling (sensitive, emotional natures) commonly manifest less of the intellectual and volitional aspects or properties. Similarly, minds of a high degree of intellectual capability (inquiring or inquisitive minds), or of much active endowment (active minds), are as a rule relatively weak in the other kinds of endowment.¹

Again, after observing that the relation of the emotional to the intellectual side of mental growth is at once a relation of mutual opposition and of reciprocal aid, Dr. Sully goes on to say:

In the first place, feeling and knowing are in a manner opposed. The mind cannot at the same moment be in a state of intense emotional excitement and of close intellectual application. All violent feeling takes possession of the mind, masters the attention, and precludes the due carrying out of the intellectual processes. Nice intellectual work, such as discovering unobtrusive differences or similarities among objects, or following out an intricate chain of reasoning, is impossible except in a comparatively calm state of mind. Even when there is no strong emotional agitation present, intellectual processes may be interfered with by the subtle influence of the feelings on the thoughts working in the shape of bias. Thus a child that finds a task distasteful is apt to reject the idea that the study is useful. His feeling of dislike prejudices his mind and blinds him to considerations which he would otherwise recognize. Hence the special diffi-

¹ *Outlines of Psychology*, pp. 21-22.

ties which, as every teacher knows, are connected with the intellectual training of children of a highly emotional temperament.

On the other hand, as we saw above, all intellectual activity, since it implies interest, depends on the presence of a certain moderate degree of feeling. It may be said, indeed, that all good and effective intellectual work involves the presence of a gentle wave of pleasurable emotion. Attention is more lively, images recur more abundantly, and thought traces out its relations more quickly when there is an under-current of pleasure. Hence rapid intellectual progress is furthered by lively intellectual feelings. . . .

We thus see how the cultivation of intellect and of emotion involve one another in a measure. In order to exercise the intellectual powers to the utmost, we must aim at making study pleasurable. And if we wish to strengthen the higher emotions, such as the moral sentiment and the love of truth, we must seek to exercise the intellectual powers.¹

And finally, in discussing the relation of willing to knowing and feeling, he notes again an opposition and a connection:

The outgoings of the mind in action, involving the excitation or "innervation" of the motor nerves and muscles, are incompatible with the comparatively passive state of observing something or thinking about something, with its physical accompaniment of bodily stillness. The man of energetic action is popularly contrasted with the man of reflection. Similarly, strong emotional excitement and action are incompatible, and the man of strong will is one who among other things brings emotion under control.

At the same time, voluntary action always includes an element of knowing and feeling. The motive to voluntary action, the end or thing desired, is the gratification of some feeling, e. g., ambition, or the love of applause. And we cannot act for a purpose without knowing something about the relation between the action we are performing and the result we are aiming at. Thus it is feeling which ultimately supplies the stimulus or force to volition, and intellect which guides or illuminates it.²

¹ *Outlines of Psychology*, pp. 451, 452, 453.

² *Ibid.*, pp. 573, 574.

From the premises before us two or three simple but important pedagogical rules are derived. One is that a gentle glow or wave of pleasurable feeling should play over the mind of the individual pupil and through the school. The intellect thrives best in a suitable emotional climate. Courage, hopefulness, appreciation, rather than their opposites, should temper the atmosphere of the schoolroom. Optimism is more congenial to the normal mind than pessimism. Another rule is that pupils should be protected against strongly excited feeling, no matter whether the feeling is their own or that of another into which they enter through sympathy. The wheels of the intellect, so to speak, will not revolve freely in a flood of turbulent emotion. No gusts of anger, cyclones of passion, or waves of sympathetic impulse in the school! Especially is the feeling that the teacher is unjust very harmful to the pupil. No immediate reference is here made to morals. "Nothing retards the acquirement of the power of directing the intellectual processes so much," says Dr. Carpenter, in a striking passage, "as the emotional disturbance which the feeling of injustice provokes."¹ Again, genuine interest may reach too high a

¹ This more extended passage may be quoted: "Those 'strong-minded' teachers who object to these modes of 'making things pleasant,' as an unworthy and undesirable 'weakness,' are ignorant that in this stage of the child-mind, the will—that is, the power of *self-control*—is weak; and that the primary object of education is to encourage and strengthen, not to repress, that power. Great mistakes are often made by parents and teachers, who, being ignorant of this fundamental fact of child-nature, treat as *wilfulness* what is in reality just the contrary of will-fulness; being the direct result of the *want* of volitional control over the automatic activity of the brain. To punish a child for the want of obedience which it *has not the power* to render, is to inflict an injury which may almost be said to be irreparable. For nothing tends so much to prevent the healthful development of the moral sense, as the

pitch. When Sir Isaac Newton saw that the train of reasoning which he had so long been following would establish his working hypothesis, his emotions would not allow him to continue, and he was obliged to hand his manuscripts over to a friend to complete the work.

Next, we come to the intellectual activities as congruous and incongruous.—Here we reach the application of the law of congruity to education that, considered from the point of view of the school, is the most important of all. So much will be admitted by those at least who regard teaching as the main function of the school. We must therefore proceed more slowly with this division of the subject. In fact, it is the main topic of this report. Still, it is not proposed to deal in detail with the nature or the relations of the cognitive elements. These elements are treated in every text-book of psychology; and, although some of the treatment may be false, the commonly accepted views will answer the present purpose.

infliction of punishment which the child *feels to be unjust*; and nothing retards the acquirement of the power of directing the intellectual processes so much as the emotional disturbance which the feeling of injustice provokes. Hence the determination, often expressed, to break the will of an obstinate child by punishment, is almost certain to strengthen these reactionary influences. Many a child is put into 'durance vile' for not learning 'the little busy bee,' who simply *cannot* give its small mind to the task, whilst disturbed by stern commands and threats of yet severer punishment for a disobedience it cannot help; when a *suggestion* kindly and skillfully adapted to its automatic nature, by directing the turbid current of thought and feeling into a smoother channel, and *guiding* the activity which it does not attempt to *oppose*, shall bring about the desired result, to the surprise alike of the baffled teacher, the passionate pupil, and the perplexed bystanders."—*Mental Psychology*, pp. 134-135.

I. Here, as in the case of cognition, feeling, and will, we observe both mutual opposition and reciprocal aid. Up to a certain point, cognitive elements grow together; beyond that point, the greater the energy expended on one kind of reaction, the less can be expended on another kind. The completed action of perception involves memory; but energetic observation, as of a single object, is at the expense of memory, while intense memory, on the other hand, tends to withdraw attention from surrounding objects. The imagination stimulates the thought-processes until the point is reached where it assumes the ascendant and reflection retires into the background. Imagination and reflection, both in an excited state, cannot dwell together in the same person or hardly in the same house. Sense-perception furnishes the logical faculties needed materials; still, become too obtrusive, sense-perception is fatal to thought. Men or peoples who live in the senses do not live in the reason, and *vice versa*.

This point is pedagogically so important that we may well dwell upon it a little longer. The Natural Realists make the sense-elements of knowledge prominent in the school. Originating as a reaction from excessive devotion to the printed page, the Realistic movement has been most fruitful of good results. With it are identified the great names of Comenius and Pestalozzi. To it we are indebted for the enlargement of science teaching, and the extended use of object lessons and objective methods of instruction. At the same time, the true limits of sense-realism are soon reached. Knowledge begins with the senses, but does not end with the senses. Properly speaking, a developing mind soon leaves them behind. Sensation is but a coarse form of feeling, and is subject to the same law as feeling. An excess of sense-elements in the mind smothers the rational elements. A blinding

flash of lightning or a deafening peal of thunder arrests the operations of the higher mental activities; while less powerful sense impressions produce a more lasting, if a less intense, effect. The great scientific discoveries have not been made in immediate contact with nature, but in the retirement of the study. Nor is time the only element that is involved in this fact; when immediate contact exists, and is vital, nature may overpower the mind. It has been said that the machine may be lost in its parts, or the picture in the colors that compose it. Equally may the universe be lost in the multitude of the stars. Concentrated attention upon the *technic* of an art retards the development of its higher elements. A house-builder is not likely to excel as an architect; the practical elements of the trade exclude the ideal elements that are essential to the art. On this basis Aristotle's prejudice against useful studies rested. "There can be no doubt," he wrote, "that children should be taught those useful things which are really necessary, but not all things; for occupations are divided into liberal and illiberal; and to young children should be imparted only such kinds of knowledge as will be useful to them without vulgarizing them. And any occupation, art, or science which makes the body or soul or mind of the freeman less fit for the practice or exercise of virtue, is vulgar; wherefore we call those arts vulgar which tend to deform the body, and likewise all paid employments, for they absorb and degrade the mind."¹

Abstract thinking—the thinking of relations and unities—which is the highest form of thought, is possible only when the mind has been *unsensed* or *dematerialized*. Whether instruction in physics should begin with theory or experiment is a mooted question. Begin where the

¹ *The Politics*, VIII : 2.

teacher may, he has not taught the subject until he has taught those logical elements that give it its character. Still more, an excess of brilliant experiments may hinder rather than hasten the work. Experiments are like examples, of which it has been said:

Examples may be heaped until they hide
The rules that they were made to render plain.

II. The practical application of the principles of congruence to teaching involves the selection and grouping of studies. It brings before us the large subject to which the terms "correlation," "coördination," "organization," and "concentration" of studies have been somewhat indiscriminately applied. It is not proposed to discuss these terms in this report, or even the subject itself, save as it involves fundamental principles. But to do even as much as this makes it necessary to state the principal laws relating to mental energy.

1. When any stimulus, as a sense object, an idea, or a lesson, is applied to the mind, the mind is not at once fully energized, but some time must elapse before it swells to the maximum of power.

2. This maximum of power continues for a time, or, in the language of science, mental energy tends to persist.

3. The maximum cannot, however, be indefinitely maintained. On the contrary, when the mental current reaches what may be called the fatigue-point it begins to fall off in volume, but the fall is less rapid than the previous rise. Still the volume can be temporarily renewed, in part or in whole, by the application of a stronger stimulus.

4. An interruption of the mental current retards the energizing process, or frustrates the reaching of the maximum of power. Such interruption is caused by the

introduction of incongruous materials. If the incongruity be of a marked character, the mind will come to a state of rest, or a new current flowing from a new center will be started.

5. Through repetition, the energizing process becomes easier and more rapid. Repeated activity in the same direction tends to groove the mind, or, to change the figure, the stream of activity digs out for itself a permanent channel of discharge.

6. Mental power is of two kinds, specific and generic. In other words, the power that is generated in any activity can be fully used again in the same kind of activity, but only partly used in other kinds—the measure of the difference being the relative unlikeness of the two activities.

7. Mental fatigue, like mental power, is also specific or generic. The mind may need rest from a certain kind of activity, or it may need rest from all kinds, or from all energetic kinds.

These psychic laws have their analogues in physical laws. The physiological psychologists find the causes in nerve and brain action, the explanation going back to the familiar functions of waste and repair. Moreover, these laws cannot be stated in quantitative terms. No one can tell, in general, how long it takes fully to energize a mind at a given time, or how far removed the fatigue-point is from the initial point of greatest energy. Very much depends upon age, discipline, physical health, the character of the stimulus, mental aptitude, and other circumstances. As a rule, the periods lengthen as the individual passes from childhood to youth and from youth to manhood. That is, a man's mental force is less quickly aroused and mobilized than a child's, but it tends to persist much longer.

III. From the laws of congruence and energy we derive some important rules of teaching, and as they, or at least some of them, bear on the selection and grouping of studies they will be stated in this place. While these laws are applicable to all grades of teaching, they are particularly important in relation to primary teaching.

1. Sufficient time must be allowed for the pupil to collect his energies, to mobilize his forces. Slow and halting recitations tend to dulness of mind, while hurried recitations develop either confusion or shallowness. There must be a certain singleness or isolation of the fact or idea. "The child must be accustomed to give one impression time to take root," says Radstock, "and not follow it immediately by a corresponding action, that it may not pass away with that action into air." The same writer quotes the following from Lazarus, with approval: "Deep thinking requires time; it is therefore a great pedagogical mistake if teachers—as is now generally done—urge their pupils to answer rapidly, and praise those who immediately have an answer ready. This causes everything to be lowered to a mere effort of mechanical memory. The pupil should be given time for individual contemplation, for deep and energetic thought-labor."¹ This does not imply that lessons are not to be well prepared and subjects well thought out beforehand. When the fullest preparation has been made, there is still opportunity for energetic thought at the time of the recitation.

2. The pupil should be held to the same subject as long as the mental current flows with full volume. To no new subject can all the energy that has been aroused by any activity be transferred, and to some subjects none whatever. Unnecessary changes from subject to subject, or from lesson to lesson, involve the dissipation, and subsequent

¹ *Habit*, pp. 36-37.

loss, of both time and power, the amount of which will depend mainly upon the relative congruity or incongruity of the different subjects or activities. More power can be transferred from Latin to Greek than from French to German. This is Dr. Bain's explanation of the rule laid down: "We know well enough that the nervous currents, when strongly aroused in any direction, tend to persist for some time; in the act of learning, this persistence will count in stamping a new impression; while part of the effect of a lesson must be lost in hurrying without a moment's break to something new, even although the change is of the nature of relief."¹ Shifting the mind from one subject to another may be compared to shifting a locomotive from one track to another; or, better still, it may be compared to shifting locomotives every mile.

3. Advantage should be taken of favoring times to do certain kinds of work. The more difficult subjects should be pursued by a pupil or student when both body and mind are fresh and vigorous. It is the flood-tide, not the ebb-tide, that brings the great ships up to the dock.

4. Before the pupil reaches the fatigue-point, the teacher should permit him either to take up another subject or to drop study for the time altogether. By the fatigue-point is meant, not the listlessness or dulness of inattention, but weariness growing from legitimate labor. Persistent application on a stream of falling energy involves waste of time and power, and may lead to serious results. To some extent, no doubt, the needed relief can be had through a change of method or by bringing forward some new aspect of the subject.

5. Whether the pupil should take up a new study or drop all study for the time, depends upon the kind of fatigue that has supervened. Diminished power for one

¹ *John Stuart Mill*, p. 23.

activity is not diminished power for all activities. Thus, a pupil who has studied arithmetic or algebra as long as it is profitable to-day, will take up geography or history with interest, and *vice versa*. To a degree, studies are like gases, they are vacuums one to another. As a jar that is already filled with hydrogen will still hold as much carbonic acid as a jar of the same size that is empty, so a pupil that is satisfied for the present with mathematics will pursue literature with interest and profit.

6. The school course of study should be made up with constant reference to the psychic laws that have been laid down. Studies should be chosen and combined; that is, with reference to economy of time and power. Into the question how far psychology, and how far environment, should control the educational ideal, and so the educational material, we need not enter. No one denies that psychology must largely influence the choice of studies and almost wholly control their coördination.

7. In particular should the working programme of the school be made up with reference to the same principles, and for the same reasons.

8. The principle of congruence and its limitations have important applications to elective studies in colleges and universities. In filling out election blanks, it is believed that students who are wholly left to themselves often choose studies which make strange bedfellows. Nor is this surprising; the criteria that should govern such choices are considerably subtile and intricate. This topic, however, will come before us again.

The arguments on which the three last rules rest are practically the same. They involve the important subject of concentration. Congruent studies reinforce one another with respect to both content and mental aptitude: one subject involves other subjects. The physicist must

be a mathematician, the historian must be acquainted with politics and political economy, and the geologist must be familiar with chemistry, botany, and zoology. For a time depth and breadth vary directly, after that indirectly. But in the absolute sense a specialist is an impossibility. An astronomer cannot study the moon by itself, or a physiologist the eye. No one object or subject can be understood when taken alone; it is related to other objects; it is a part of the universe. Still, to be effective the mind must be grooved, and this involves the repetition of the same act and of similar acts. Once more, if the practical requirements of the school compel a study to be discontinued before the fatigue-point is reached, thus departing from the ideal, then some related subject may be taken up, because more of the power that has been accumulated can be transferred to a related than to an unrelated subject. And still the nearness of the pupil to the fatigue-point must be considered. In other words, whether a pupil should be transferred to a related or an unrelated subject, must depend upon himself and his present mental condition.

IV. But congruence alone must not dictate the course of study, the daily school programme, or the college student's elections. Fortunately, there may be power for one subject when there is none for another subject. We have spoken of the mind under the similitude of a stream or current. The fact is, however, that the mind is less like a river from which you may take water for any purpose, than it is like a bank where the total amount of money on deposit is divided among many different accounts, and is subject to check by as many different persons. There may be money for the teacher of history or literature when there is none for the teacher of mathematics or physics.

This is due to specialization of powers—to the difference between specific and generic force. The one-study college is therefore just as unphilosophical as the school that breaks the hours up into crumbs of time. Thus the fundamental laws of mental energy, or of interest if you will, impose a veto upon an exaggerated form of concentration.

It is further to be observed that concentration is a relative term at best. No wise teacher proposes to limit the pupil to a single study or class of exercises. To do so would in reality involve the dogma of formal discipline in its most extreme form. Another remark is that concentration in the lower school may be overdone as easily as expansion in the higher school. It has been shown time and again that the child may be overtaught certain subjects. His impressible mind may be so deeply and narrowly grooved that it can never be broadly cultivated. It becomes indurated, as it were. This result may be due in part to the intensity of the activity, but it is more due to its persistence. As the mind matures, there is less and less need of caution on this point. The pupil gets farther and farther away from the mechanical elements of knowledge, becomes more and more occupied with the higher elements, and so is less responsive to narrowing influences. While the child's activities must be duly limited, his full development still calls for a relative profusion of educational material.

Once more, congruence itself is not an abstract quality of studies. On the contrary, it is eminently concrete. The practical question is not the general one, whether such and such studies or topics will go well together in general, but the specific one, whether they will go well together in the case of such or such a student. Studies that sometimes repel at other times attract one another; or studies that seem to

have no affinities, but the contrary, dwell together in some minds in perfect unity. It is common to find students who excel in studies as unlike as literature or language and mathematics or physics. The rule, however, is probably the other way. For some reasons it would be better to speak of the congruence of mental faculties than of studies.

At this point some very practical questions confront the teacher and superintendent. How long should a pupil be kept at work on the same subject? How much work should he do in one school-day? How frequently should he change from one subject to another? How many studies should he have? No man can answer these questions in formulæ; the teacher and superintendent must answer them as they arise, and to do so they will find their best observation and judgment seriously taxed. It may well be doubted whether the common schools are not now sacrificing the best results to swollen programmes and short exercises. The question is one that the superintendent should study with a transcript of the foregoing facts in one hand and his course of study and time-table in the other. There is no reasonable doubt that much evil in the school that is now charged to the account of overwork, should rather be charged to work that is done in the wrong way.

The psychic facts to which the names of congruence and energy have been given, demand fuller investigation than they have hitherto received. It is well known that school programmes, both in respect to the coördination of subjects and the length of exercises, commonly rest upon a crude empirical basis. The factors that control those who make them, appear to be the necessities of the school, real or supposed, tradition, and individual experience. This empiricism is not surprising, considering the

meager attention that psychologists and pedagogists have given to the principles that underlie good school programmes. Very little attention has been given to the time elements involved in psychic energy as applied to school exercises. When three heavy subjects appear upon the programme for the day—subjects demanding the fixation of the attention—you will not indeed commonly find them all crowded into the same session; but that is about as far as the attempt to accomodate the work to the pupil's ability in this regard has been carried. Such delicate questions as these occur: How much time elapses between the application of different stimuli to the child-mind at different ages, and the development of maximum psychic power? How long is the interval between such maximum and the fatigue-point? In respect to the swelling of the mental current to its full volume, and in respect to its persistence, how much depends upon the pupil's age? How much upon his mental character? How much upon the peculiar stimuli at different ages? And how much upon the teacher's skill? It is easy to translate these questions into the practical interests of the school. They cannot be answered without much careful observation and collaboration of facts. The whole subject should enlist the serious attention of students of child-study, both under its physiological and psychological aspects, and it is earnestly recommended to their attention.

V. The correlation of the teacher and the text-book, if one be used, demands something more than passing notice. Dr. Bain has said that undoubtedly the best of all ways to learn anything is to have a competent teacher "dole out a fixed quantity of matter every day, just sufficient to be taken in and no more; the pupils to apply themselves to the matter so imparted, and to nothing else.

The singleness of aim is favorable," he urges, "to the greatest rapidity of acquirement; and any defects should be left out of account until one thread of ideas is firmly set in the mind." Still he admits that not unfrequently, and not improperly, the teacher has a text-book to aid him in his work. To make this a help and not a hindrance demands the greatest delicacy, since the pupil must be kept in *one single line of thought*, and never be required to comprehend on the same point conflicting or varying statements. Even the foot-notes may have to be disregarded in the first instance, since they act like a second author, and so keep up an irritating friction.¹

Nothing else is so essential to successful elementary teaching as unity or congruence of subject-matter. Dr. Bain does not exaggerate the value of the "one thread of ideas," or the "one single line of thought." His scruple about foot-notes even is often justified. These more definite rules will determine the teacher's general relations to the text-book.

1. If the book is the main source of instruction, the teacher should teach the book; that is, the matter of the book. If foot-notes tend to confuse, what shall be said of a teacher who takes an independent line from the beginning? No wise teacher certainly would give a pupil who is just beginning a new subject two text-books. A good Sunday school-teacher, dealing with the life of Jesus in a primary class, would not try to follow all the Gospels, or even two of them, at the same time; rather than do that, it would be better to select his material here and there and to blend it in a new gospel of his own. The teacher may teach something more or something less than the book teaches on a single point, but nothing different or contradictory.

¹ *Practical Essays*, pp. 218-219.

2. The teacher should also follow the methods of presentation that the book employs. Nothing could be more absurd than for a teacher who has assigned to a class a lesson that is presented inductively to go ahead and teach it deductively.

3. The teacher should study to make the first presentation of a lesson successful. If a second presentation is required, besides the loss of time, the mind is left in a littered-up condition that is confusing. This is the reason why it is often more difficult to teach a subject well to a pupil to whom it has been imperfectly taught than to a person to whom it is wholly unknown.

4. If the subject-matter of the book or of a single lesson is radically bad, or the method decidedly faulty, it should be laid aside altogether. If only certain portions are objectionable, or certain methods of presentation, the teacher should not assign these to be studied, but should teach such subjects *de novo*. This observation assumes, of course, that the teacher is able to do so.

5. The wise teacher will not present a subject in more than one way, unless he has failed in the first way. It is folly to give a second explanation of the division of a fraction by a fraction, if the first explanation has been understood. The same remark will apply to casting interest and to many other subjects. It is well enough for the author of an arithmetic to give two or more methods of performing these operations, thus giving the teacher an option; but the teacher should choose the method which he thinks best adapted to his purpose, and then adhere to it until the subject is thoroughly taught. At the stage of teaching now supposed, never give more than one definition or rule on a single point. Superfluous illustrations also not only do no good, but they do positive harm, begetting confusion worse confounded.

It will be understood that these rules relative to the use of the text-book apply particularly to the early stages of teaching, and that they would require very important modifications if they are to be applied to the advanced, rational, or critical stage of education. Narrow teaching must come before broad teaching. In time the pupil, if rightly handled, will get out of his single line of thought; will be able to deal with subjects; can criticize and weigh different definitions, contradictory views and rules, and opposing opinions; can use a variety of books, compare authorities, and employ different methods of procedure. Thus, Dr. Bain recommends that in geometry the pupil should be held strictly to Euclid until he has become thoroughly at home on the main ideas and leading propositions; then he is safe in dipping into other manuals, comparing differences of treatment, and widening his knowledge by additional theorems and by various modes of demonstration.¹ But the time when all this can be done will not be hastened by pushing the pupil forward prematurely. The teacher who inundates the pupil with all kinds of things is the pupil's worst enemy, unless indeed it be the teacher who keeps him too long and too intensely harping on the same string. It is only the knowledge that really energizes the mind which is valuable.

If it be objected that these rules contemplate a text-book grind, two replies may be made. It is not attempted to say how far books should be used in teaching, or to discuss the relations of oral teaching and book teaching. The rules laid down assume that books will be used, though not to the exclusion of the other method. Books have been used in schools since the invention of writing, or at least since the invention of printing, and our oral methods and real teaching will not dislodge them. But, further, much that has

¹ *Practical Essays*, p. 216.

been said under this head applies to oral teaching. The teacher should not be contradictory, but consistent; should aim to make the first presentation of a subject successful, and should adhere to a single line of ideas until it is fixed in the mind, no matter whether he teaches orally or uses a book. In fact, there is the more reason for emphasizing some of the rules laid down in the case of oral teaching, because the pupil then has less opportunity to clarify his mind by a comparison of ideas and statements.

At least mention should be made of examinations, over which so fierce a contention has been waged in recent years. There is no reason to hope, or to fear, that they will pass out of the school. None are likely to deny that examinations are a very valuable teaching exercise. Nor is there much reason to doubt that they will continue to be used as tests at promotion time—to a less degree than twenty years ago, let us hope! Heretofore slight attention has been paid to the relations of studies in arranging programmes of examinations. The nearness or remoteness of studies from one another has been little regarded. At another point, a much more serious mistake has been made. Pupils have sometimes been shifted from subject to subject so frequently that they have had little opportunity to show what they could do; and then again they have been kept at work until both the specific and the generic fatigue-points have been passed. The correction of both evils must be sought in the laws of congruence and energy.

VI. It has already been remarked that the laws of congruity and energy bear on the college or university student's choice of electives. How many subjects should such a student have at the same time, and what should be their relations? Should he scatter his energies over a large field, or concentrate them on a small one?

Professor Trowbridge, discussing some years ago the subject of economy in college work, urged that the Harvard student should study two subjects for at least three months, and two subjects only; one of these should be a hard subject, giving plenty of opportunity for application, while the other might be a comparatively light subject that could serve as a mental rest through the change which it afforded. At the end of three months two other subjects might be taken up, and the first ones be relinquished for a time; and so on to the end of the course. After observing that some studies are so nearly related that intellectual effort in one is of service to another, while others are not; that Latin and Greek, philosophy and history, political economy and history, are examples of the one class, while German and French, chemistry or physics and philosophy, are examples of the other, he examined the nineteen or twenty subjects which form in the main the elective curriculum of Harvard University. He found that the division of subjects could be reduced to twelve by grouping the subjects which aid each other, as follows: Latin and Greek; French and French history; German and German history; political economy and history; chemistry alone or in conjunction with English; Spanish and Spanish history; philosophy and history; physics alone; Semitics and ancient history; fine arts and music with English, or fine arts and music as a let-up with any of the severer studies; mathematics and English; romance philology and its suitable language. Having twelve subjects, the student could pursue three of these in the nine months of each college year, and in four years he could accomplish the whole twelve, provided, of course, he wished to take all the subjects enumerated.¹

This scheme has been introduced mainly for the sake of

¹ *The Atlantic Monthly*, November, 1888, pp. 671, 672.

illustration. In criticising it we should remember that at Harvard University all studies are elective, save only a modicum of English and physics. Still, it may be said that, although propounded for a laudable purpose, the scheme is open to one or more serious objections. Within the successive three months' periods, study is certainly over-specialized, and particularly in the first college years. The common Freshman will not, and cannot, work up his available power in one main line of study. The laws of mental energy are violated. The range of interests is too narrow. In the later years of the course this objection would be less serious. Other important questions, as whether the time allotted would be sufficient for the leading subjects, occur, but they need not be considered. This branch of the subject is dismissed with the remark that college electives call for a fuller examination than they have yet received, particularly in respect to the principles that should underlie elections and practical administration. There is good reason to think that in some quarters, at least, *laissez faire* has been carried too far.

VII. The last topic to be mentioned is graduate study. While there is not, or at least should not be, a chasm between undergraduate and graduate work, still there are palpable differences of ideal and method involved. The first period looks to general cultivation; the second period, to special cultivation. The undergraduate need not lay equal stress upon all the studies that he pursues; he may emphasize some more and some less; but he should not sacrifice general culture to Greek scholarship, Latin scholarship, mathematical scholarship, or any other kind of special scholarship. The graduate student, on the other hand, should go much further on the road to specialization, and particularly the candidate for the

doctor's degree. But even here specialization may be overdone. It is not desirable that the student should confine himself for three years to a special line of study. The first objection to such a course is, that it overgrooves the mind at the age of the ordinary student who is doing such work. Even the graduate student should not lose sight of general cultivation and fall into stark professionalism. But secondly, a single study will not absorb to advantage the student's powers. It will be carried on in derogation of the law of specific and generic fatigue. One brain tract will be overworked while others are neglected. If the professional man needs a let-up, or an avocation, to keep his mind out of the ensnaring groove, much more the student who is still lingering in the schools.

Then how many subjects should the graduate student have? The answer will depend somewhat upon the student himself, as well as upon other considerations. As a rule, there should be at least two distinct lines of work, one of which may be heavy and one light. The first may include different subjects chosen with reference to congruity, as Greek literature and Greek history, Latin literature and Roman history; but there should certainly be a second distinct line of work, separate and apart from the first one, also made up with regard to congruity, that will at once cultivate breadth and also consume time and power that the main subject cannot absorb.

At this point a cautionary remark may be dropped. It is a mistake to suppose that subjects are congruous merely because they bear the same name in part. Congruity is determined by elements and not by words. For example, how much have Greek literature and Greek antiquities, or Latin literature and Roman antiquities, in common? Certainly less than some enthusiastic scholars are wont to assume.

Perhaps it will be said that this report is conservative on the subject of specialization. This is no accident. There is great reason for reconsidering the relations of education and erudition. Professor Davidson, of our own country, says it is the failure to draw this necessary distinction "that is misleading our universities into the error of allowing students to 'elect' specialities before they have completed the cycle of education, the result of which is that we have few men of thorough education or of broad and comprehensive views. If this evil is ever to be remedied," he urges, "our universities will be obliged either to abandon this practice, or else to give up all attempt to impart education, and devote themselves solely to erudition, leaving the other to academies, gymnasia, or the like."¹

Professor Butcher, contending for the unity of learning, declares that it is at present endangered by disintegrating tendencies. He alleges that excessive specialization is the death of science, and that it involves the dissolution of society. "Conceive, if you can," are his words, "a world of specialists, in which each man's vision and labor is concentrated on some microscopic point in the field of human activity, and the very idea of a political and social organism disappears. There is a point at which the subdivision of labor in the intellectual sphere must be checked, and some unifying principle introduced, if we are to retain any rational conception of man, or of the world, or of human life."²

Professor Laurie, of Edinburgh, also observes: "The stress of competition among individuals and nations compels us, unhappily, more and more to give a specific character to our training, and to ignore the larger national

¹ *The Education of the Greek People*, p. 23.

² *Some Aspects of the Greek Genius*, pp. 209, 210.

and human aims. It is clear, however, that in so far as we lose sight of the latter in the interest of the former we err; because it is the broad human and national element in education that gives character and power. If we fail in giving this, all specific activities of mind will be weakened by the weakening of their foundation in the man as a man. In the systematization of education accordingly, the real problem amounts in these days to this: How shall we rear specific aptitudes on the basis of a common instruction and discipline which shall contemplate the man and the citizen, and only in the second place the worker?"¹

And finally, Professor Paulsen sounds a note of warning from the greatest of the German universities. Pleading for the unity of the university, he speaks of the danger of disintegration through the diminished influence of the faculty of arts. "Of course," he says, "there is no possibility of retrogression in the division of labor, upon which depend the mighty advances of scientific research. We are called upon, however, to oppose the spirit of 'specialism,' of over-narrow self-confinement and small-souled satisfaction with one's self: and everyone who belongs to a university is likewise called upon to help along the opposition." Dr. Paulsen suggests several remedies, the principal one of which is the maintenance of the old conception of liberal culture. "In particular, the tendency toward generalization of study, the philosophical sense which ever stands ready to turn the details to good account in the service of the ultimate and highest insight, must always find its proper home in the faculty of philosophy. Herein may be found a peculiarly appropriate field for 'public' lectures; to present to a wider circle of hearers, to the disciples of all related branches of

¹ *Pre-Christian Education*, Introduction.

learning, whatever problems and results of general interest are included in a special subject." ¹

This report has embraced so many topics that its leading purpose may possibly have become somewhat obscured. At all events, it will be well to restate that purpose in a few clear terms. This is to apply the law of mental congruence, as limited by the laws of mental energy, to some important pedagogical problems, as the fabrication of a course of study, the making up of a working programme for a school, the choice of college electives, and the subject of graduate study. Congruence means the meeting or bringing together of things that are consonant or related; and as applied to the problems enumerated it looks to the deepening, broadening, and strengthening of study and teaching by coordinating those studies and elements of studies that tend to support and reenforce one another. Full discussion has not been attempted. It is hoped that the leading principles have been clearly and strongly stated, and that they have been so firmly applied to the problems enumerated that the report may prove useful as a basis for further study.

¹ *The German Universities*, p. 234. Translated by E. D. Perry.

IV.

THE SCIENCE AND THE ART OF TEACHING.

HE word "science" is derived from the Latin *scientia* (*scire*, to *know*), and means knowledge. The word "art" comes from the Latin *ars* (*ἀρετή*, to *fit*, to *join together*), and means skill, contrivance, or method.

The fundamental difference between the two is that the object of science is knowledge, while the objects of art are works. In general the distinction is the same as that between theory and practice. Theory is knowledge, practice is doing. Both spring from activity, but from different kinds of activity. Science, or theory, involves primarily intellectual activity; practice, or art, enlists the faculties, aptitudes, and dexterities of the body. Commonly, however, the two elements are more or less intermingled, as we shall see hereafter.

But while art is primarily doing or skill in an active or practical form, it is secondarily a body of rules intended to direct or guide doing or skill. This is an important distinction. Archbishop Thomson says: "The distinction between science and art is, that a science is a body of principles and deductions to explain the nature of some object-matter. An art is a body of precepts with practical skill for the completion of some work. A science teaches us to know, an art to do." Both aspects of art are here recognized, but not in their natural order. Mr. J. S. Mill says: "Science and art differ from one another

as the understanding differs from the will, or as the indicative mood in grammar differs from the imperative. The one deals in facts, the other in precepts. Science is a collection of truths; art a body of rules or directions for conduct. The language of science is, 'This is,' or 'This is not,' 'This does or does not happen.' The language of art is, 'Do this,' 'Avoid that.' Science takes cognizance of a phenomenon, and endeavors to discern its law; art proposes to itself an end, and looks out for means to effect it.''" Nothing could be better than this as far as it goes; but it will be seen that Mr. Mill limits art to rules and precepts, that is, to a body of teaching, thus overlooking the purely practical element altogether. Mr. James Harris commits the same error. "Science," he says, "gives principles, art gives rules."

The two aspects of art suggest several observations.

1. Power or skill is the fundamental element, as both the etymology of the word "art" and an analysis of the thing itself show.
2. An art may be practiced, and often is practiced, by those who have given to the rules governing it little attention. Such are guided by what is sometimes called "the rule of thumb." Still more, an art may be carried on, and commonly is carried on even by those who have mastered the rules, without immediate or conscious reference to them. The rules that such persons practice have become second nature, controlling habit.
3. An art considered as a collection of precepts, methods, or rules may be studied, and frequently is studied, by those who do not expect to practice it at all. This they do as a source of mental improvement or enjoyment.
4. An art as a collection of precepts is knowledge, but it is not scientific knowledge. Science is concerned with

facts and principles ending in themselves; art with methods or ways of doing that end in works. In science truth is the sole end. In art it is a means to an end. However, if the rules or methods are true and good they rest on facts and principles. To say, "The first reaction of the mind upon any subject is analysis, the second synthesis," is to utter a fact of science. To say, "Present wholes before parts," "Bind up parts into wholes," is to utter rules of teaching. The person who observes these rules is so far forth a good practical teacher, exemplifying art in its original sense. "Repeated representations of an object deeply impress the mind;" "We know the concrete before the abstract, the particular before the general, the simple before the complex,"--these are facts from which familiar pedagogical rules are deduced. Still, it must be remembered that "whole" and "part" are relative words, and that nearly all objects are one or the other according as they are viewed. It is not meant of course that teaching should begin with the largest wholes, as geography with the globe. Again, it is not always thought necessary formally to express both terms of this relation. The axiom, "Repetition is the mother of studies," suggests the correlative rule; while the precept, "Proceed from the known to the unknown," suggests the correlative fact. Nor are the two terms always clearly thought out. Men of science go on discovering facts and truths without thinking of rules and methods that may be deduced from them; just as men of practice keep following a rule or a habit without stopping to think of its cause or reason. Moreover, it is often more difficult to find a practical application of a truth or fact than it is to find a scientific support for a precept or a method. It follows that while science is knowledge, it is not *all* knowledge. It is not even all

systematized or organized knowledge, as the common definition asserts. A rule or method duly formulated is also knowledge, and, so far as it goes, organized knowledge as the words themselves imply.

Again, method is used in a reflective or generalized sense. Methods involve certain general facts or principles; that is to say, they rest at last upon the human mind, and so may be subjected to scientific treatment. Method, accordingly, has its two aspects—one empirical and one scientific. As a body of rules propounded immediately to guide practice, method is art pure and simple, falling of course under the second aspect of that subject; as a body of rules, the origin, nature, and authority of which are to be explained, it is science pure and simple. Methodology is commonly used in the second of these senses. This the word itself suggests: it is the science of method. Descartes's celebrated discourse on method—the full title of which is “Discourse on the Method of Rightly Conducting the Reason and Seeking Truth in the Sciences”—deals with the methods of the mind. It is a contribution to philosophy, is a scientific treatise.

5. It is not strange, therefore, that science and art are often made to flow together, thus tending to speculative confusion. Most treatises on the theory and practice of medicine, and on the science and the art of teaching, are examples. The theory may be put by itself in the first part of the book, the art by itself in the second part; they may be mingled throughout; but the questions, “Is the characteristic feature of the matter knowledge or skill?” “Does it state a fact or tell you what to do?” separate them as a flash of electricity resolves a drop of water into its component gases. The nature of science, the nature

of art as practical skill, and the nature of art as rules are three different though closely related ideas. They must be clearly grasped by the sound thinker: For example, Cicero treated rhetoric as a science when he stated its facts and principles; he treated it as a reflective art when he laid down its rules and methods; he practiced rhetoric when he made speeches in the Forum and Senate House, and also, in the modern sense, when he wrote his books, no matter what the subject.

6. There is a difference of opinion as to the relation in time of science and art. Dr. McCosh presents this view:

Art has in general preceded science. There were bleaching, dyeing, and tanning, and artificers in copper and iron before there was chemistry to explain the processes used. Men made wine before there was any theory of fermentation; and glass and porcelain were manufactured before the nature of alkalies and earths had been determined. The pyramids of Nubia and Egypt, the palaces and sculptured slabs of Nineveh, the cyclopean walls of Italy and Greece, the obelisks and temples of India, the cromlechs and druidic circles of countries formerly Celtic, all preceded the sciences of mechanics and architecture. There was music before there was a science of acoustics; and painting while yet there was no theory of colors and perspective.¹

Mr. Harris this view:

If there were no theorems of science to guide the operations of art, there would be no art; but if there were no operations of art, there might still be theorems of science. Therefore science is prior to art.

Both of these views are true in part and false in part. Science is not mere knowledge, but organized knowledge; art not mere practice, but elaborated or refined practice. Science is an advanced stage of knowing, as art is an advanced stage of doing. Hence the question, Which is older, science or art? is not the same as the question, Which is older, knowing or doing? If the terms are

¹ *The Divine Government*, p. 140, 8th edition.

employed in their strict acceptation, Dr. McCosh is right in general in respect to the early stage of their relations, while Mr. Harris is equally right in respect to their late stage; but if the terms are taken in the loose sense of knowledge and practice, then either one is partly right and partly wrong throughout the whole history of human development. There can be no doubt that to-day the arts depend far more upon the sciences than the sciences upon the arts. Dr. Whewell states the true relation thus:

The principles which art *involves*, science alone *evolves*. The truths on which the success of art depends, lurk in the artist's mind in an undeveloped state, guiding his hand, stimulating his invention, balancing his judgment, but not appearing in the form of enunciated propositions. . . . Art in its earlier stages, at least, is widely different from science, independent of it, and anterior to it. At a later period, no doubt, art may borrow aid from science.¹

To go to the root of the matter, we will take up the relations of knowing and doing more carefully.

Human activities are of two kinds, the spontaneous and the volitional, the instinctive and the conscious. The one kind springs from the automatic nature, the other from the will. Spontaneous activities antedate birth, and they cease only with death. They furnish the groundwork of all education. Leaving out of account the organic functions, such as breathing and digestion, they bring the child into relation with the external world, and so furnish the beginning points of knowledge. An infant's instinctive beating of the floor with his feet or of the crib with his fists, his rolling of his eyes, and a hundred other instinctive movements mark important stages in his education. It is in such ways that he progressively learns that there is such a thing as environment, something sep-

¹ *Philosophy of Inductive Science*, Vol. II, pp. 111, 112, 2d Edit.

arate and apart from himself. Volitional activities are performed to accomplish an object, as when a child grasps a ball or seeks to seize the flame of a lamp. The characteristic of all such activities is aim or purpose, to develop which—that is, to expand the factors of intelligence and will in connection with motive—is the proper educational function. It is sometimes difficult to assign an action to its class, as automatic or conscious, but that in no way affects the distinction. While the relation of the two activities is an important subject, we are not here concerned with it beyond the primary fact that instinct precedes intelligence.

The relations of doing and learning may be thus summed up: (1) As we have seen, some of our instinctive activities lead directly to contact with the external world, and so result in knowledge of that world and of ourselves. In this vague primary sense it may be said that all knowledge is conditioned upon doing. (2) Our natural activities lead to artificial ones, and so to the formation of habits that lie proximate to knowledge. Such an activity as walking, for example, enlarges one's knowledge of the material world. (3) Then there are the accidents that lead to discovery, as when the Indian hunter, climbing up the mountain side, laid hold of the bush to sustain his weight, and, when it came away, saw the silver lying at its roots. (4) Next may be mentioned those experiments that are tried to find out something, without any definite idea or expectation of what it will be. (5) Practice tends to perfect knowledge that originates in all these ways. As Bacon says studies "perfect nature, and are perfected by experience; for natural abilities are like natural plants that need pruning by study: and studies themselves do give forth directions too much at large, except they be bounded in by experience."

Important as are the causal effects of practice upon knowledge, it is easy to exaggerate them. Whenever an idea, a thought, a datum of intelligence, leads to activity the order is reversed. It is just as certain that all the purposive or intentional activities follow knowledge as that all the instinctive activities precede it; the knowledge may be rudimentary and imperfect, but it is there. It is very true that there were bleaching, dyeing, tanning, and wine-making before men studied chemistry or discovered a theory of fermentation; but it is not true that men bleached and tanned, and made wine before they had ideas of the things which they wanted to do and of the ways in which they should do them. No doubt nature first taught men these processes through observation; but men carried them on with purpose from the very beginning, save as they have been slightly affected by accident. Once entered upon, the process of activity contributed to the enlargement of knowledge. The arts of teaching, preaching, and healing are older than the corresponding theories. At the same time there was no teaching, preaching, or healing until those engaging in those activities had ideas both of ends and of means. The arts and the theories have grown up together.

The internal relations of the two factors, it is hoped, have been made plain. The sciences find their applications and uses in the arts, the arts find their causes and reasons in the sciences. The reciprocal relations of the two factors have not been better stated than by Sir William Hamilton in this passage:

The terms "theory" and "theoretical" are properly used in opposition to the terms "practice" and "practical"; in this sense they were exclusively employed by the ancients; and in this sense they are almost exclusively employed by the Continental philosophers. Practice is the exercise of an art, or the application of a science, in life, which application is itself an art, for it is not

everyone who is able to apply all he knows; there being required, over and above knowledge, a certain dexterity and skill. Theory, on the contrary, is mere knowledge or science. There is a distinction, but no opposition, between theory and practice; each to a certain extent supposes the other. On the one hand, theory is dependent on practice; practice must have preceded theory; for theory being only a generalization of the principles on which practice proceeds, these must originally have been taken out of, or abstracted from, practice. On the other hand, this is true only to a certain extent; for there is no practice without a theory. The man of practice must have always known something, however little, of what he did, of what he intended to do, and of the means by which his intention was to be carried into effect. He was, therefore, not wholly ignorant of the principles of his procedure; he was a limited, he was, in some degree, an unconscious, theorist. As he proceeded, however, in his practice, and reflected on his performance, his theory acquired greater clearness and extension, so that he became at last distinctly conscious of what he did, and could give, to himself and others, an account of his procedure.

*Per varios usus artem experientia fecit,
Exemplo monstrante viam.*

In this view, theory is therefore simply a knowledge of the principles by which practice accomplishes its end.¹

The Greeks and the Romans did not distinguish between the arts and the sciences just as we are accustomed to do. The Greek *τέχνη*, which we render art, and from which we get "technic," "technical," etc., while it is defined "skill," "craft," "aptitude," in the lexicons, nearly corresponded with our science: German scholars have rendered it *Wissenschaft*. The Latin lexicons define *scientia* "knowledge," "science," and "skill;" they define *ars*, "skill," "practice," and "knowledge;" but, strangely enough, measured by our use of terms, the Romans called what we call the sciences *artes* and not *scientiae*. Broadly, however, the Roman arts, in a pedagogical sense, were *studia*, and our word "studies" renders *artes* much

¹ *Metaphysics*, Lecture X.

better than "sciences" or "arts." Some of the Latin arts were arts and some sciences, as we should call them. The Seven Liberal Arts of the Medieval schools were an outgrowth of the Græco-Roman education.¹ They were:

The TRIVIUM: Grammar, dialectics, and rhetoric.

The QUADRIVIUM: Music, arithmetic, geometry, and astronomy.

Gram. loquitur; Dia. vera docet; Rhet. verba colorat;

Mus. canit; Ar. numerat; Geo. ponderat; Ast. colit astra.

Our distinction of the arts and sciences had not been clearly thought out when all these studies were called "arts," and in our sense of the word they might have been more fitly called "sciences." The terms "art," "the arts," "mechanic arts," "industrial arts," "practical arts," "fine arts," "polite arts," and "arts" in "arts and sciences" are rather applications of knowledge than knowledge itself; but the phrases "bachelor of arts," "master of arts," and "the course in arts" still retain the ancient meaning of the word.

The theoretical relations of science and art have now been treated, it is believed, with sufficient fulness. Incidentally, also, the question, Of what value is the study of a science to the man who practices the corresponding art?—has been touched. But that question should receive fuller treatment. The question is this: What reasons can be given why the man of practice should study the principles on which his art depends?

Dr. Campbell, discussing this question, says the art of living is built upon theology and ethics, or religion and morals; the art of surveying and accounting on mathe-

¹ See Davidson: *Aristotle and the Ancient Educational Ideals*, p. 239, *et. Seqq.*

matics; architecture and navigation on mathematics, natural philosophy, and geography; surgery on anatomy. He concludes, on the one hand, that valuable knowledge always leads to more practical skill and is perfected in it; on the other hand, that practical skill loses much of its beauty and extensive utility which does not originate in knowledge. Accordingly, he likens the relation of science and art to the relation existing between the parent and the child.¹ But Dr. Campbell would include the reflective side of art in science. However, he well illustrates the common mode of arguing on the question.

In his essay on Lord Bacon, Lord Macaulay handles the question in this vigorous fashion:

We conceive that the inductive process, like many other processes, is not likely to be better performed merely because men know how they perform it. William Tell would not have been one whit more likely to cleave the apple if he had known that his arrow would describe a parabola under the influence of the attraction of the earth. Captain Barclay would not have been more likely to walk a thousand miles in a thousand hours, if he had known the name and place of every muscle in his legs. Monsieur Jourdain probably did not pronounce D and F more correctly after he had been apprised that D is pronounced by touching the teeth with the end of the tongue, and F by putting the upper teeth on the lower lip. We cannot perceive that the study of grammar makes the smallest difference in the speech of people who have always lived in good society. Not one Londoner in ten thousand can lay down the rules for the proper use of *will* and *shall*, yet not one Londoner in a million ever misplaces his *will* and *shall*. Dr. Robertson could undoubtedly have written a luminous dissertation on the use of those words. Yet even in his latest work he sometimes displaced them ludicrously. No man uses figures of speech with more propriety because he knows that one figure is called a metonymy and another a synecdoche. A drayman, in a passion, calls out, "You are a pretty fellow," without suspecting that he is uttering irony, and that irony is one of

¹ *Philosophy of Rhetoric.—Introduction.*

the four primary tropes. The old systems of rhetoric were never regarded by the most experienced and discerning judges as of any use for the purpose of forming an orator. *Ego hanc vim intelligo*, said Cicero, *esse in præceptis omnibus, non ut ea secuti oratores eloquentiæ laudem sint adepti, sed quæ sua sponte homines eloquentes facerent, ea quosdam observasse, atque id egisse, sic esse non eloquentiam ex artificio, sed artificium ex eloquentia natum*. We must own that we entertain the same opinion concerning the study of logic which Cicero entertained concerning the study of Rhetoric. A man of sense syllogises in *celarent* and *cesare* all day long without suspecting it; and, though he may not know what an *ignoratio elenchi* is, has no difficulty in exposing it whenever he falls in with it; which is likely to be as often as he falls in with a Reverend Master of Arts nourished on mode and figure in the cloisters of Oxford. Considered merely as an intellectual feat, the *Organum* of Aristotle can scarcely be admired too highly. But the more we compare individual with individual, school with school, nation with nation, generation with generation, the more we lean to the opinion that the knowledge of the theory of logic has no tendency whatever to make men good reasoners.

Like Macaulay's other exaggerations, this one contains much truth. He is wholly right as to Tell and Barclay, and partly so as to Jourdain; but such analogies are too mechanical to apply closely to mental operations. As to grammar, there can be no doubt, first, that the fundamental law of language is use and wont; or, secondly, that the reflective study of language corrects errors and tends to form a second language nature. As to logic, it is nonsense, as he says in the context, to suppose that Aristotle or Bacon thought that he was doing anything more than to generalize the mental processes with which he dealt, and to lay down rules for conducting them. How far these generalizations are true, and how far these rules are helpful, are perfectly fair questions. Men learn to reason by reasoning, and real logic is therefore a far more valuable exercise than formal logic; but to say that study of the theory of reason-

ing is useless is to commit the same mistake that Macaulay falls into in regard to grammar and rhetoric. J. S. Mill, a much more competent witness on such a subject, declares that to nothing was he more indebted for his power to think than to the very thorough instruction in the school logic that he received from his father. "The first intellectual operation in which I arrived at any proficiency," he says, "was dissecting a bad argument, and finding in what part the fallacy lay: and though whatever capacity of this sort I attained, was due to the fact that it was an intellectual exercise in which I was most perseveringly drilled by my father, yet it is also true that the school logic, and the mental habits acquired in studying it, were among the principal instruments of this drilling."¹ Many a man has dated a new mental era from the time that he took up the theories of thought, of expression, and of conduct.

But the passage quoted involved assumptions that are only half true. We will narrow the ground: Why should a teacher bother his head with the physiological and psychological facts that underlie education? In effect this question has been answered already, but it will be well to present the answer more sharply.

1. The student-teacher will reap the usual disciplinary and cultural benefits that follow the study of science. These benefits will be all the greater because the subject of study relates to the daily work in which the student is engaged. The subject of study is not distant and abstract, but near and concrete. Theory is purged by experience; experience is illuminated by theory. He is a poor workman indeed, and particularly a teacher, that has no interest in the *rationale* of his work. The teacher, and, through the teacher, the pupil, gets the

¹ *Autobiography*, p. 19.

benefit of a stronger and fuller mind. There may be cases where scientific studies lead to the poorer practice of an art, owing to the practitioner's absorption in knowledge as such, but experience shows that these are exceptional cases, the rule being just the other way.

2. The teacher enjoys that power of revision and pre-
vision which only deep knowledge of his work can give,
and that satisfaction which can follow only from working
in the open field in the light of day. Experience has con-
firmed, time and again, what theory suggests—that the
practice which is guided solely by habit and routine con-
stantly tends to narrowness and mechanism. It also con-
firms the suggestion that the only way to correct this
tendency when formed, or to prevent its formation, is to
vitalize practice by uniting it with knowledge. It is per-
haps true that to the common mind nothing seems less
vital than theoretical knowledge; but if so it is due, at
least in great part, to the unfortunate confounding of
theory with conjecture or hypothesis. The Greek con-
ception of theory is the true one. *θεοπλα* means the in-
tellectual view of a subject, and deep insight into its
nature; hence, to adjust practice to theory is to adjust it
to the facts of the case, and to urge that science should
guide practice is much the same thing as urging that
practice should be intelligent.

3. While the principles of science are few and may be
studied exhaustively, the problems and cases of the art
are inexhaustible. An engineer may grasp the princi-
ples on which the building of bridges depends, but he
can never anticipate all their applications. He had
better therefore master his science rather than seek to
accumulate a great stock of pictures, models, and draw-
ings of bridges, valuable as these are in their proper place.

4. The study of teaching as an art also is sometimes denounced as useless. But it cannot be denied that, to teach, a man must have an idea of what teaching is, and some idea of how to do it; and this is knowledge. Even M. Jourdain, Macaulay to the contrary, may well have received instructions in the handling of his organs of speech.

We live in an age of methods. "Tell us how to do it," "Give us something that we can carry into the school-room," is the cry of thousands of teachers. Educational journals, and even pedagogical books, are crammed with devices and tricks that are elevated to the dignity of methods. Hence it should be said, first, that a method is good only in so far as it leads quickly and easily to the chosen end; and, secondly, that it leads to such an end so far, and so far only, as it embodies a valuable idea or thought. That is a weak mind which, once in the possession of a principle, cannot, at least when reinforced by moderate experience, handle applications as they present themselves.

Doubtless it would be too much to say that the man who knows most of the science of painting or sculpture will paint the best pictures or make the finest statues. Theoretical knowledge cannot take the place of technical skill; notwithstanding, the great artists have all had a profound insight into the principles underlying their work. The teacher will find a firm hold of the principle of imitation a much better preparation, in the long run, for teaching the language arts than the painful turning of the crank of routine or grinding in the mill of formal precepts.

The self-assumed superiority of the so-called "practical man" over him whom he scornfully calls "the bookman,"

consists largely in his freedom from all theories. The fundamental mistake involved in this assumption consists in confounding theory with conjecture or assumption. A theory is merely a view of certain facts, and if it is bad it is because it does violence to the facts through omission or otherwise. For one to proclaim himself without theories is to proclaim himself without ideas. Theories precede all actions that spring from purpose. A cook cannot make a biscuit, or a blacksmith shoe a horse, without a theory; and if, perchance, the wrong theory is followed the results are disastrous, as when the smith attempts to shoe an ox as he would shoe a horse. The fact is, that no man is without his theories. The late Professor Bonamy Price, of Oxford, after observing that "men at all times have occupied themselves with the creation of wealth according to certain rules and ideas," very pertinently remarks:

No laborious employment can be extensively carried on without the existence of some notions as to the right way of working, and the most fitting methods for attaining the end desired. It is a mistake, though a very common one, to suppose that practical men, as they are called, are destitute of theory. The exact reverse of this statement is true. Practical men swarm with theories, none more so. They abound in views, in ideas, in rules, which they endow with the pompous authority of experience; and when new principles are proposed, none are so quick as practical men to overwhelm the innovator with an array of the wisdom which is to be found in prevalent practice.

The difference between men is not that some have theories while others have none, but that they differ in the source and nature of their theories, as Professor Price goes on to show.

The difference which separates the man of science from the man of practice does not consist in the presence of general views and ideas on one side, and their absence on the other. Both have

views and ideas. The distinction lies in the method by which those views have been reached, in the breadth and completeness of the investigation pursued, in the rigorous questioning of facts, and the careful digestion of the instruction they contain, in the coördination and the logical cohesion of the truths established.¹

The practice of medicine furnishes a good illustration. The theories of the quack grow out of his own experience and are limited by it; the theories of the physician rest upon the research of the medical world.

There has been much difference of opinion as to method and the study of method. Talleyrand declared methods to be masters' masters. "The true instruments of the sciences, they are to teachers themselves what teachers are to their pupils." Pestalozzi, who never did anything methodically, made the method everything, the teacher nothing. He even affirmed that a text-book had no value except so far as it could be employed by a teacher without instruction, as well as by one with instruction. M. Compayré quotes the proverb, "As is the master so is the method," as expressing the true view.

Three questions present themselves to every intelligent teacher, *What?* *How?* *Why?* The first comprehends the method to be taught; the second the method to be followed; the third the cause or the reason why this method should be followed. These questions are closely connected, but they are here given in their natural order. The *what* and the *how* must join hands in the best teaching. In elementary schools, method is especially important because pupils have small power to arrange or organize matter for themselves. In colleges and universities, learned scholars may be found who are wasting their own time and their pupils' time because they do not know how to teach. It is never a good sign therefore to hear a teacher sneer-

¹ *Principles of Currency*, Lecture I.

ing at methods. As Bacon said: "A lame man on a straight road reaches his destination sooner than a courier who misses his way."

It is sometimes said that persons who have studied teaching professionally often fail as teachers, while others who have not so studied it often succeed. While we must admit the facts to be as stated, we should be careful not to draw from them wrong conclusions. Some persons lack native aptitude to teach, just as some others lack aptitude to practice medicine or the law. Besides, professional study may run on wrong lines. Other persons are rich in teaching capacity, and, supplementing their defective training by private study, they succeed. Moreover, nothing can take the place of actual practice in the schoolroom.

Defined absolutely, there are three kinds of teachers. The mechanical teacher knows nothing of the philosophy of education; he has never studied either the human mind or educational values; he takes everything on authority, and is the slave of tradition, routine, and habit. The empirical teacher has a somewhat broader range; still he has no grasp of educational science or history, and is limited by his own observation and experience. The philosophical teacher is guided by the broad facts and laws of educational science; he is more or less versed in the theory and history of education; but all his scientific and historical knowledge has been vitalized and illuminated by his own experience. All good teaching grows out of good pedagogical ideas, from whatever source they may be derived.

Still another topic to be treated is the order in which the two leading courses in pedagogy should be taken. Which should come first, the science or the art of teaching? Facts and principles or rules and methods?

Something can be said in favor of either mode of procedure.

It may be said that since principles are the causes of methods, and since we cannot intelligently study modes of doing things unless we understand the things to be done, the natural order is from principles to methods. And from the standpoint of pure theory this reasoning is unanswerable. It would be hard to find a book that reverses the order. On the other hand it may be said that general ideas are deduced from practice; that art is older than science; that it is a great advantage to one studying the science of teaching to have had some previous practical knowledge of it, and that therefore the practical course should come before the theoretical. And this reasoning seems as conclusive as the other.

Both of these views, when stated in this exclusive way, are too narrow. We will suppose that a student who has had no experience whatever as a teacher first takes up the course in theory. But this student has been a pupil in the school; or at least has studied, and has had a teacher; he has perhaps read or heard more or less about teaching, so that he has a certain acquaintance with the practical elements of the subject; or he has, at least, a daily exemplification of the rules of teaching before him in the work he is now doing. And still further, the teacher whose lectures on the theory of teaching he hears, or the author whose books he reads, constantly enforces the principles that he presents with illustrations drawn from the art of teaching. Or, on the other hand, we will suppose that a student first takes up the practical course. He has, however, been a member of a school; at least belongs to one now, and can hardly have failed to reflect somewhat on the art that he has seen practiced; he has probably seen or heard some discussions of educational doctrine; or, these

two suppositions failing, his teacher of method is constantly enforcing the methods and rules that he recommends with arguments drawn from the theory of teaching.

It is therefore manifest that the theory and the art of teaching cannot be absolutely separated; that they overlap to some degree; and that the professor, in presenting the one course, lays the emphasis on theory, while in the other he lays it on practice. The fact is that the science and the art of teaching, like many other sciences, have grown up together. The all-important thing is that the mutual dependence of theory and method shall be understood, and that the student, if he begins with principles, shall carry them out into practical rules of teaching; or, if he begins with methods, shall thoroughly ground them in educational doctrine. In the later stages the question of order is more important than in the first stages. Here science should ordinarily precede art. In general, it may be said, that the man who coined the traditional phrase, "Theory and Practice," put the two elements in the proper order. He would have made a mistake if he had said "Practice and Theory."

Finally, what has been said as to the relation of the courses in the science and the art of teaching involves a moot question that should receive a word or two of comment. This question relates to the value of the so-called model or practice work in connection with the study of pedagogical theory and formal art.

It would be waste of words to emphasize in general the value of a practical acquaintance with the elements of an art to a person who is engaged in its study, and particularly if he looks forward to its practice. No matter how painstaking the teacher may be—no matter how carefully

he may illustrate his ideas and lessons—there is still a certain abstractness or remoteness from reality, unless the pupil has tried, or is permitted to try, his own hand, or at least to observe the activities in question. This is, no doubt, true of teaching as of the arts generally: and this is the reason why model or practice departments are found so commonly in normal schools. The admitted evils that such schools often engender, as method-grinding and self-complacency in the pupils, need not here be dwelt upon; nor will the proper organization and control of such schools be made the subject of remark. The only point that needs to be made is this, that it is easy to exaggerate the value of such practical elements as can be obtained in a practice school under the ordinary conditions, and also easy to expend unnecessary commiseration upon the pedagogical pupil who does not enjoy such advantages. As urged above, every student of teaching, no matter whether he has taught or not, has been at school; he has been a pupil, has mingled with pupils, and is a pupil now; he has had teachers and now has one or more. In these ways he has accumulated a fund of practical knowledge that will go a considerable distance, although by no means the whole way, towards compensating him for his lack of practical experience, past or present. More than this—he is constantly surrounded by minds old and young; the commerce of life compels him more or less to observe the workings of these minds, and, what is still more to the purpose, he has a mind himself which serves him as a pedagogical laboratory in the same way that it serves him as a psychological laboratory. He is by no means without an illuminating knowledge of the matters with which he is dealing. In fact, it is his own personal experience of such matters that is to interpret for him through apperception his observations of the minds of others. Ac-

cordingly, to call a practice school a "laboratory" in any scientific sense of that term, or to say that children stand to teaching pedagogy in the same relation that plants stand to the teaching of botany, is to fall into a mistake that is now unhappily not uncommon. This mistake is to overstrain an analogy, and to do violence to facts.

V.

“CALVINISM” AND “AVERAGING” IN EDUCATION.¹

HEN the call to this meeting reached me, I was watching the ripples in the educational journals caused by one of the boldest and frankest educational utterances that I have read for many a day, viz.: the short address made by President Eliot, of Harvard University, at the annual dinner of the Schoolmasters' Club of Boston, at the end of October; and it occurred to me that I might render you a small service by making it the subject of my own discourse. President Eliot's abilities, position, policy, and courage of his opinions always give importance to what he says on educational matters. Perhaps I have not made the happiest selection of a theme; but you will at least remember that in the commonwealth of American education we have no tribunal, as a bench of judges, to pass authoritatively on questions; no digests of opinions or reports of cases that settle causes and prevent further argument. On the contrary, causes are always open to him who chooses to argue them. No doubt we make foolish experiments in consequence; but these are not so costly in the end as it would be to close causes to discussion, and to settle questions by referring them to registered wisdom. Moreover, the spirit of our large educational

¹ An Address delivered before the Michigan State Teachers' Association, Lansing, December, 1885.

gatherings is so catholic, and the range of ability, culture, and experience represented in them so considerable, that almost any topic, even if it touches education only indirectly, is pretty sure to awaken interest if fairly well presented.

The character of President Eliot's thinking on education, and the policy that he has pursued at Harvard, are so well understood that, in the beginning, I need only say this in general—each distinct point in his address is an outcropping of his favorite principles of election and comprehension. In discussing these points, I shall often pass beyond the limits of what he has said, to consider related questions. This is the paragraph in which he states and combats what he calls the "Calvinistic theory" of education:

At a meeting of teachers which I attended last week, a distinguished man burst out with a completely irrelevant statement that nothing was good for training that was not hard. Now, I want to say that the view which ascribes usefulness to mental exercise only when it is repulsive and distasteful to the scholar, needing a dead-lift of the will, is to my thinking the absolute opposite of the truth with regard to mental training. No subject is good for the training of a child four years old, or twelve, or eighteen, in which the child or youth is not capable of achieving something, capable even of decided success, and of winning that enjoyment and satisfaction which come with achievement and success. If we would divide subjects into profitable and unprofitable we must, I believe, always put in the profitable class those subjects which the boy enjoys, and in the unprofitable class those subjects for which he has no capacity and in pursuit of which he gets no enjoyment. A subject is good for a child precisely in proportion to his liking for it, or in other words to his taste and capacity for it. ¹

¹The extracts are made from an article by President Eliot in *The Popular Educator*, November, 1885. This article and the after-dinner speech were the same in substance.

At the outset we should boldly mark one capital distinction that much current writing and talking on educational and kindred topics tend to confuse, viz.: Work is not play. Ingenious essayists and lecturers sometimes almost delude us into believing, at least for the moment, that they are, or may be made, the same thing. They both involve activity, work commonly more than play; but they differ in the ends to which the activity is directed and in the mental attitude of those who put it forth. Work is an act or a series of acts in the line of one's occupation or duty; play is resting from such acts. The synonyms of the one word are “labor,” “toil,” “employment;” of the other, “pleasure,” “amusement,” “diversion.” Work is girding up the powers for serious effort; play is their relaxation, at least their diversion from ordinary pursuits. Aristotle says there must be business for the sake of leisure.¹ Both work and play appear in a well-ordered life; both have disciplinary value; both are related, though in quite different ways, to education, but neither one can be made to answer the purposes of the other.

In educating children the attempt has sometimes been made to put work in the place of play, and sometimes the attempt to put play in the place of work; and it would be hard to say which has led to the greater failure. The first attempt is the blunder of practical teachers only; the second is the blunder both of teachers and of writers on educational theory. So sober a man as John Locke not only proposed to combine instruction and sport, but said nothing like work should be laid on children; the great use and skill of a teacher in the case of small children being, he affirmed, to make all as easy as he can.²

¹ *The Politics*, vii. 14, 13. Translated by Jowett.

² See *Thoughts Concerning Education*, § 129, 148-155.

No doubt play comes before work in the order of development; no doubt children learn many useful things in their sports; no doubt the kindergarten has a message for the primary teacher: but failure will in the end attend every attempt to make the schoolroom a playroom and the course of study a series of games. Even in a school where the aim is to teach only through amusements, children divide the exercises set for them into two classes, making work of some and play of others.¹ Moreover, if it were possible to clothe all work in the habit of play, it would not answer the ends of complete discipline. John Maynard did not think it play when, in smoke and flame, he stood at his wheel until burnt to a crisp. The sentry does not think it play as, in cold and storm, he paces his weary beat at midnight, keeping watch over the sleeping army that has been given to him in trust. The nurse who, in hospital or home, watches alone over her feverish and delirious patient in the small hours, does not think it play. Nor, again, does the pilot, the sentry, or the nurse acquire his fortitude and devotion in spinning tops, flying kites, or playing lawn-tennis. To be sure tops and kites and tennis have their place, but the ability to gird up the powers of the body and the mind for supreme efforts, or even for common efforts, comes from a different regimen. It was in a thorough school that St. Paul learned to say, "For necessity is laid upon me."

It may be replied that men sometimes find their play-spells in severe exertion of a particular kind, as solving problems in mathematics or physics. Such declarations are often to be understood rhetorically. Still it must be said that long application to given things may produce a

¹ "The plays of children should not be systematized; they should give the individual an opportunity for the distinct development of faculty."—Radestock: *Habit in Education*.

second nature that speaks a different voice from the first nature. Work may become a disease. Lord Chief Justice Ellenborough sat on the bench until he said the greatest pleasure of his life was to hear Follett, then a young barrister, argue a point of law. Again, great interest in a subject, and great enthusiasm in its pursuit, make it attractive and pleasant. We read that "Jacob served seven years for Rachel and they seemed to him but a few days, for the love he had to her." But plain, unsophisticated common sense holds work and play antithetical. Even so devoted and resolute a lover as Jacob would have preferred to win his bride in an easier way than serving seven years as a herdsman.

Now, I do charge President Eliot with confusing work and play. Such confusion is not necessarily involved in anything that he says; but so much such confusion exists, that a bold delineation of the two kingdoms seemed a proper prelude to taking up his real point.

The President tells us that studies should be made interesting and easy; school, pleasant and attractive. This is indeed very valuable advice. The unpleasant associations that still cling around the words "pedagogue" and "master" are survivals of that period in educational history when it was common to make school studies exceedingly hard, school discipline exceedingly severe, and school life exceedingly forbidding. The Calvinistic theory was then in its glory. What is left of this regimen is now passing away so rapidly that we need to give much more attention to what is taking its place than we do to hastening its passage.

The child has a spontaneous nature that should be harnessed to studies and to the whole work of life. Automatic attention is that state of the mind in which its energy is given to a thing from some native affinity or attraction;

volitional attention, that state in which its energy is given by an act of choice. The development of volitional attention is one of the highest aims of discipline. Now, in training the child the spontaneous attention must be rallied to the support of the volitional, which is weak or rather does not at first exist at all; but as time goes on the volitional attention should grow and become more and more independent of the spontaneous. Humor has been likened to the lever by means of which we raise great weights with a small force. Love and enthusiasm are also powerful motors. There is a large suggestion for the teacher in the fact that a little boy who complains bitterly of the weariness of walking will, when put astride of his grandfather's cane, and told that it is a horse, scamper away forgetful of his own bitter complaints. But somewhat of life consists in walking when one is weary; and no boy is fitted for life who cannot walk. The child should indeed be led to the hard by the way of the easy; but the man has no real training or character who cannot, on due occasion, collect his powers to do a multitude of things that he considers hard and disagreeable. The spontaneous powers keep us alive in infancy, and death comes when they wholly fail us; but the highest end of education is the fullest development of the judgment, the moral sense, and the will. Hitch the spontaneous forces to your wagon by all means; but if you have no other horses, do not be surprised when you find that you drive an uncertain team.

Drawing nearer to President Eliot, it is not true that nothing is good for training unless it is hard; but it is true that no training is complete which does not involve much severe and vigorous labor. It is not true that mental exercise is useful only when it is repulsive and distasteful,

needing a dead-lift of the will; but it is true that a good many such lifts have to be made, and that the child must be got ready for them by lifting. It is true that no subject is good for training in which the child is not capable of achieving something, and of enjoying the achievement; but it is not true that a subject is always good for him in the long run in proportion to his present capacity and liking for it. Sometimes it is the case that a child, or older pupil, who has small capacity for a subject, and finds little pleasure in its pursuit, develops, through application and study, great capacity and pleasure. After they have passed the rudiments of learning, children should not be kept long at subjects for which, under skillful teaching, they have a positive aversion; nor, on the other hand, should the choice of their studies be left to their caprices and whims. Things should not be made hard that are by nature easy. There is no reason in blocking the way to grammatical analysis with a cart-load of nomenclature; or in weighing down the solution of a simple example in arithmetic with a ponderous formula. There is no excuse for retaining in text-books the artificial distinctions and antiquated methods often found in them. Arithmetics, for example, should not be museums for hanging up on exhibition “applications” that have disappeared from business, if indeed they were ever known there. But there is a difference between real life and training after all. In real life it is best to accomplish results with the smallest expenditure of power and in the quickest way consistent with thoroughness; but in the nursery and the school this is not always the case. The child that can be carried quickly and easily across the room, must learn to walk across it. Pupils must learn algebraic methods by first solving problems that they can more easily solve by arithmetical methods. Astronomers

do not now, like Sir Isaac Newton, use the Greek geometry in making their computations;¹ but the mathematical student needs the discipline and logical forms of the Greek geometry nevertheless. Moreover, we only destroy the child morally by keeping him forever shut up in a glass case; we should rather equip him with sound principles, good habits, healthful appetites and desires, pure affections, and right purposes, and then allow him to be subjected to trial and testing. Further, trial and testing are essential to the production of that very equipment. In a word, my whole contention is that the child must be brought, progressively of course, to measure his full powers with the labors and difficulties of life.

My reason for dwelling so long on this point is my conviction that nowhere along the long line of educational discussion is there greater need of clear ideas. We forget sometimes that the end of teaching is not to place certain information in the mind of the pupil in the easiest way, but rather to see that it is retained and assimilated, and that the mind and character are strengthened by the process. Partly in this forgetfulness, and partly in our haste to hurry children along, lies the explanation of some of the characteristic features of our schools. Books are not taken away from children, but they are not given the chance that they need to study them; while teachers, with their "new educations," "natural methods," and "oral

¹ "Speaking of the ancient geometry used by Newton, Dr. Whewell has said: 'The ponderous instrument of synthesis, so effective in his hands, has never since been grasped by any one who could use it for such purposes; and we gaze at it with admiring curiosity, as on some gigantic implement of war which stands idle among the memorials of ancient days, and makes us wonder what manner of man he was who could wield as a weapon what we can hardly lift as a burden.' "—Draper: *Intellectual Development of Europe*. p. 529.

instruction,” fill the children up with knowledge and at the same time destroy mental character. Perhaps I should remark that this is true only in a relative sense. It is quite generally asserted by high school teachers who have had a lengthened experience, for example, that their pupils are not the independent workers that they were fifteen or twenty years ago. An old lady familiarly called “Grandma” was a patient in a hospital for the insane over which a friend of mine presided as superintendent. She resolutely refused to swallow food, and for two full years fed herself only once in the natural way. She would place the feeding pipe in her throat, and hold the bowl of milk or broth in her hands, while the attendant threw the liquid into her stomach with a pump. One day the doctor said: “Grandma, don’t you think it would be better if you would eat this food yourself?” “Oh, no,” she answered, “this is so much easier!” With all his mistakes in educational matters, John Stuart Mill certainly understood the great educational transition of his times when he wrote:

I do not believe that boys can be induced to apply themselves with vigor, and what is so much more difficult, perseverance, to dry and irksome studies, by the sole force of persuasion and soft words. Much must be done, and much must be learned, by children, for which rigid discipline, and known liability to punishment, are indispensable as means. It is, no doubt, a very laudable effort in modern teaching, to render as much as possible of what the young are required to learn, easy and interesting to them. But when this principle is pushed to the length of not requiring them to learn anything *but* what has been made easy and interesting, one of the chief objects of education is sacrificed. I rejoice in the decline of the old brutal and tyrannical system of teaching, which, however, did succeed in enforcing habits of application; but the new, as it seems to me, is training up a race of men who will be incapable of doing anything which is disagreeable to them.¹

¹ *Autobiography*, pp. 52-53.

Mr. Mill even said: "A pupil from whom nothing is ever demanded which he cannot do, never does all he can."

In his second paragraph President Eliot gives his views of another division of the subject:

This idea, I know, if carried out thoroughly, runs directly counter to another very common idea—namely, that there is a considerable number of subjects which everybody ought to know. Now, the longer I live, the greater experience and wider observation I have, the more I settle to the conviction that there is no one thing that a liberally educated man *must* know. In arithmetic, for example, what stumbling blocks to children are least common multiple and greatest common divisor; but we have all discovered that common people have no use for either of these matters. And so on throughout much of school education. It is not at all *necessary* for everybody to know what air is made of, where the River Charles rises, how the pump draws water, or the names of the stars, or of any of the kings of Egypt. Not one of these things is in the slightest degree essential to a liberal education. Hence the notion that there is a certain number of subjects which everybody should know, ought never to be allowed to interfere with or counteract the general principle that the best training for every individual lies in the pursuit of those subjects for which he is best fitted and which he enjoys.

Unfortunately, this language is not as clear as could be desired. In one sentence the President denies "that there is a considerable number of subjects which everybody ought to know," thereby apparently admitting by implication that there are some such subjects; and in the next sentence he affirms "that there is no one thing that a liberally educated man *must* know." The denial and the admission can be harmonized only by holding that the term "thing" applies to a single fact or object, and is not the same as a "subject" or branch of knowledge. But we are cut off from making this distinction by the last sentence, where what has been affirmed of "thing"

is affirmed of “subject.” Apparently, then, the President of Harvard desires us to understand him in the most absolute sense; there is no one thing or subject which a liberally educated man need know. This is a surrender of the three R’s, unless we are to suppose that these are instruments or methods for learning things and subjects, and not such themselves.

One’s view of the whole paragraph will depend somewhat upon the sense that he attaches to the expression “a liberally educated man,” a topic that I set aside for the present. No one can fairly claim that such a man must know the elements of the air, the source of Charles River, the action of a pump, the names of the stars, or the names of the kings of Egypt. But the real question is this: What is a liberally educated man’s relation to the great departments of knowledge to which these facts belong—to chemistry, geography, physics, astronomy, and history? Admit, for the sake of argument, “that the best training for every individual lies in the pursuit of those subjects for which he is best fitted,” provided we can only find that out; but since it is a fact that special talents do not ordinarily declare themselves at the age of ten or twelve years, how are we going to make that discovery? The boy of those ages is quite apt to have a stock of whims and notions of his own; moreover, what he enjoys depends largely upon his associations and habits; and we cannot relegate his studies to the court of notion and enjoyment.

So much for Calvinism. Let us now hear the President on averaging and uniformity.

There is another principle which we should bear in mind, though it runs counter to generally accepted ideas, viz: That uniformity in intellectual training is never to be regarded as an

advantage, but as an evil from which we cannot completely escape. We have lately heard a great deal about "keeping step" as a valuable part of public-school training; but I do not know a more unfortunate figure to use with regard to education. Even in military movements, if troops want to get anywhere they never keep step. A large school is almost necessarily a kind of averaging machine. But we should always bear in mind that though this averaging may be in some measure necessary, it is a necessary evil. All should admit that it would be an ineffable loss to mankind if the few great men were averaged with the millions of common people,—if by the averaging process the world had lost such men as Faraday and Agassiz, Hamilton and Webster, Gladstone and Cavour. But do we equally well understand that when ten bright, promising children are averaged with ninety slow, inert, ordinary children, a very serious loss is inflicted, not only upon those ten, but upon the community in which the one hundred children are to grow up? There is a serious and probably an irreparable loss caused by the averaging of the ten with the ninety children. Thererore I say that uniformity in education all along the line is an evil which we should always be endeavoring to counteract, by picking out the brighter and better children, and helping them on by every means in our power.

No other paragraph in the address is so exasperating to public-school teachers as this one, and no other is so deserving of their attention. Putting aside our resentment at being talked to in this manner, we should candidly inquire what there is in this matter of uniformity and averaging.

In a sense a large public school is "a kind of averaging machine." But the world is full of such machines, and we need not be over-afraid of them. A national literature, no matter how rich and varied, is an averaging machine. It tends to produce a certain mental homogeneity, a certain type of culture that is more or less distinct from all other cultures. The American is not reared on the literature of Italy or Persia, and would not be an American if he were. The Christian Church, in the broadest historical

sense, is an averaging machine; and so, in a much closer sense, are the state churches of Europe and the Christian denominations of America. One does not need to be a theologian to trace the line of delimitation separating the Christian Church from all other churches, as the Jewish, the Mohammedan, or the Buddhist. The Christian denominations rest upon certain doctrinal uniformities and certain spiritual cultures, which uniformities and cultures they tend powerfully to perpetuate. Non-conformity is the loose-fitting name of a multitude of British sects; but it nevertheless marks off some very definite beliefs or non-beliefs which those sects hold in common. Colleges and universities are averaging machines; their function being to provide society with liberally educated men, who have something in common even when the name is held in a sense loose enough to please President Eliot. Republican government and absolute monarchy are averaging machines, each tending to produce its own type of citizen or subject. Nay, civil society itself, the very civilization of which we boast, is an averaging machine; it is plainly divided from barbarous or savage society, and tends to certain uniform results. Certainly in this broad sense, large public schools, and small public schools, and schools of all kinds are averaging machines. Moreover, they should be such machines. The name may offend us by its suggestion of mechanical rather than vital or organic processes, but we need not hesitate to admit the fact. Hence if President Eliot speaks absolutely when he says that uniformity in intellectual training is never an advantage, and that averaging is a necessary evil, I cannot agree with him. Probably, however, he does not speak in that way. So far, then, there is no room for a quarrel.

But this is neither the kind of averaging nor the kind of uniformity that President Eliot means. He has in his mind a process that ignores the individuality of children, kills originality, rounding off the sharp knobs of genius and character, and thereby accomplishes two things—turning out a type of tamely uniform men and women, and losing to the world its Faradays and Agassizes, its Hamiltons and Websters, its Gladstones and Cavours. I do not share the fear that there is great danger of the potential great men of the future being spoiled in this way, but there is such a thing as over-averaging. Mr. Bagehot said civilization consists of two elements, custom and change, legality and progress. "Law, rigid, definite, concise law, is the primary want of early mankind." This is the "cake of custom," or "the preservative habit," with which civil society everywhere begins. Then come progress and variety; "getting out of a fixed law," "breaking the cake of custom," "breaking through the preservative habit and reaching something better."¹ Both theory and history prove that the second of these steps is much the more difficult of the two. Asia is full of arrested civilizations. Witness China, which once had a promising civilization, but which for thousands of years has stood still, wholly unable to break the tough cake of custom that antiquity baked. The averaging machine has there done its perfect work. We talk of the "average American," having in mind a certain vague type of man, and not venturing to name as such any individual in the throng who jostle us on the street; but in Pekin, if I understand the matter rightly, you can safely point to almost any passer-by with the words, "That is the average Chinaman." Once more, there may be a valuable suggestion in the fact that the Chinese

¹ *Physics and Politics*, pp. 21, 27, 53.

averaging machine is in the hands of the schoolmaster; in no other country in the world have the teacher, the school, and literary studies been so powerful in moulding the national character and life.

It is this excess of uniformity—this over-averaging—that President Eliot complains of, and that we all need to watch with fear and trembling. There is a certain danger of its appearance in schools of all kinds; other things being equal, more danger in large schools than in small ones, and in systems of schools than in single schools. Many teachers do over-emphasize—and the majority of teachers are more or less likely to over-emphasize—keeping step. To compare the public schools with other schools might be thought invidious, and to speak in quantitative terms of any school is impossible; but I am free to say, for one, that President Eliot has pointed out one spot where public-school men need to keep the danger signal all the time flying.

Men offer to our observation a great variety of talents and tastes. In his late address at Johns Hopkins University, Archdeacon Farrar said:

The minds of men differ radically. Some men, like my friend the late Dean Stanley, are interested in the nature and thought of men; others breathe most freely in the regions of the abstract. Charles Darwin said that at school he had learned nothing, with the exception of that which he had taught himself by private experiments in chemistry; and when the head master discovered him, instead of encouraging him, he reproached him before all the form with being a *poco currente*, which he thought a dreadful name. St. Bernard is so dead to outer impressions that he travels all day along Lake Geneva, and then asks where the lake is; while Linnæus is so sensitive to the beauties of nature that, when he beholds a promontory standing boldly forth and teeming with beauty, he cannot help falling upon his knees and thanking God for such a world.

What educational problems these examples suggest! But every man of reading can readily parallel them, even

if he cannot state them in as choice language. Sir Walter Scott took small interest in the school studies, and was looked upon with little favor by the masters; but he had a passion for the antiquities, history, and minstrelsy of Scotland, and finally became the great chivalric poet and historical romancer of the century. You remember the stories of Darwin and Sir Humphrey Davy. But a much commoner case is such as this: A boy who does nothing in school but make trouble has a taste for drawing and mechanical contrivance; he spends the time that the teacher wants him to bestow on geography and grammar in making pictures and toy machinery, and at last blossoms out, to the surprise of everybody, an architect or an inventor. But the variety of character is greater than the variety of intellect. The sensibility and the will present to the educator more problems and more difficult ones than the understanding. Children's minds have been compared to combination locks; if you have the "combination," you can enter at once; if you have not, no pounding on the door will give you entrance. Sometimes the combination is simple and easy, and then again it is complex and difficult.

Now, our problem is to adapt the schools to this variety of mind and character. Averaging of some sort begins at once. One hard thing to manage is the course of study; the work assigned in the grades must not be measured by the ability of the brightest, nor again of the dullest, scholars. The problem confronts us again in the examinations and promotions. Then the teacher question brings it up in a still more trying form. Some teachers can rise and fall through two or three octaves, some through one octave, some are confined to a single note. In government and moral control it is even worse, since the average teacher has less power to discipline and mould

character than she has to instruct. One teacher reports a pupil stubborn; another says he is perfectly manageable. One teacher soothes a boy who is bristling like the fretful porcupine; another ruffles him and makes him more fretful. In some schools you will always find more or less irritation and friction; troublesome boys who pass into other schools disappear from sight like icebergs drifting towards the torrid zone. We have difficulty in accounting for these differences in teachers. Even the most skillful analysts of character fail us. They mention “good sense,” “sympathy,” and several other common qualities, and then pass off into vagueness—“native tact,” “subtle influence,” and “indefinable quality.” Most unfortunately, where the teacher should be fullest of resources the most vicious averaging is done. Again, women are more skillful than men in finding the mind and heart combinations of small children, and this is why they make the best primary teachers.

I am familiar with the manner in which the regulation schoolmaster puts aside such examples as those just presented. He says they are “exceptional,” and declares, what is true enough as a rule, that the boys and girls who do well in school do well in other places; but the question arises whether the child that cannot go at the common pace, but has a pace of his own—the boy who is separate and apart, and is therefore called “queer,” or “odd,” or “strange”—receives the attention that is his due. Should such a boy as Walter Scott, or Charles Darwin, or Humphrey Davy appear in the schools of Detroit, Chicago, or Cleveland, would he find any room, or would he be driven out by the established regimen? I shall not answer my own question, but will say that the schools sometimes seem to present a case of arrested development. The graded-school movement has done great

things for education; it has brought system and order out of chaos; it has created custom and legality, but the question of individual adaptation and progress has not been fully solved. The cake of custom has been baked, but not fully broken. This is my excuse for offering some remarks on this point of a more definitely practical character.

1. President Eliot does not exaggerate the value to the world of its great men; nor is his solicitude for the ten brightest children in a hundred misplaced. He was right when he wrote in "*The Atlantic Monthly*" ten years ago:

We Americans are so used to weighing multitudes and being ruled by majorities that we are apt to underrate the potential influence of individuals. Yet we know that Agassiz's word about a fossil fish justly outweighed the opinion of the whole human race besides; that Von Moltke is worth great armies to Germany; that a few pages of poetry about slavery and freedom by Longfellow, Lowell, and Whittier have had the profoundest effect upon the public fortunes of this country during the past thirty years; that the religions of the world have not been the combined work of multitudes, but have been accepted from individuals. We must not be led by our averages and our majorities to forget that one life may be more precious than other millions; that one heroic character, one splendid genius, may well be worth more to humanity than multitudes of common men.¹

But it does not seem possible to make very full provision for the highest abilities in schools of any kind. The fact is, the men who have them move in an orbit, and with an impetus, of their own. In discussing the scale of merit among men who obtain mathematical honors at the University of Cambridge, Mr. Galton speaks of the enormous differences of power that the examinations reveal.

¹June, 1875, p. 713.

One year the senior wrangler obtained 9,422 marks, while the man who stood at the bottom of the same honor list obtained only 309. Galton states the ratio of abilities as 80 or 32 to 1; that is, the senior wrangler is able to grapple with subjects thirty or thirty-two times as difficult as the man who stands lowest on the list. And yet he insists that the examinations do not give the best men a fair chance, owing to the large amount of time that is taken up in the mechanical labor of writing.¹

Now, how are these extraordinary men to be educated? I can see but one possible answer—they must, for the most part, get what they need in extra-school work. What they need is great teachers who can guide them in their studies. This is what Dr. Brunnow did for Watson at Ann Arbor. It is not practicable to bring the brightest pupils in a public-school grade together in classes by themselves; the different classes of pupils within the grade must, for the time, work together. But when we succeed in gearing the public library to the public school, the best pupils can pour their surplus power into literature. It may be replied that the best pupils are apt to be the nervous and precocious ones, who should not be crowded, which is true in a measure; but there are other pupils of superior ability and strength who can do more than the allotted measure of work.

2. A good teacher can do a great deal of this differential work within the school. Here, I fear, teachers do not always understand their business. At the beginning of a term a class is graded, and the teacher, perhaps, thinks that she should keep it graded. Not at all; it is her duty to ungrade the school as quickly and thoroughly as possible. Even classes may be very easy to handle, but they indicate average teaching. English fox-hunters

¹*Hereditary Genius*, p. 20.

think it a great merit in a pack of hounds to run in so close a body that a blanket will cover them, but schools are not, or at least should not be, "packs of children." By ungrading a school I do not mean that the bright children are always to be promoted out of the class, though that is sometimes best: I rather mean that extra work may be furnished in school or out of school to those who are able and anxious to do it. This would, in reality, be putting two or three courses in the one course: *imperia in imperio*.

3. To put elective studies in lower-grade schools I think impracticable. The studies of those grades are fundamental in character as well as in name, and the children, with the exceptions soon to be made, must be held to them. But you will often find boys who have no taste and no ability for grammar, for example, but are good readers, good arithmeticians, good geographers, and are full of general information into the bargain. To refuse promotion to such a boy, particularly if his stay in school will be short, is an injustice. The same is true of the girl who succeeds in everything but arithmetic. But I shall be told that there are indolent pupils, and pupils who have dislikes for particular studies, and that these will also ask for promotion when they fail. This difficulty is not an imaginary one; but I reply that I would promote none on this score who have not also been successful in nearly all the studies. Moreover, the refusal to do justice to one class of pupils because another and a different class will make trouble, while it must sometimes be done perhaps, is most emphatically a vicious averaging process. Again, there are pupils who never master the work of any grade beyond the fourth or fifth; they absorb so much of a subject and never absorb any more; and, when the point of saturation is reached, they should be

moved along. Of course such pupils cannot be carried through the schools and graduated; fortunately for the management, however, they generally disappear before graduation day comes. Perhaps I shall be asked, “How much would you yield at these various points?” That question cannot be answered in quantitative terms. What I mean is, I would individualize the cases and deal with them as they arise.

But one side of uniformity and averaging President Eliot did not touch on. It was left to Professor Harris, of Andover, at that famous dinner, to discuss the subject of order. He is reported as having said: “Order is not heaven’s first law; order is the law of a small mind—of an imitative, mechanical mind. Order, as a law, reminds one of a Dutch garden, of rooms in a hotel with furniture arranged exactly alike. There is a vast distance between order and disorder where variety may appear.” We need not weigh these words one by one, or as a whole; but it is desirable to think the important subject of order out to the end.

The common saying that order is not an end but a means is perfectly true. The same may be said of education itself, though in a different sense. Order is proximate to education, education to life. A certain kind and amount of order is essential to intellectual education; there must be attention and application to the objects of study. Migratory tribes never become highly civilized; bodies of men must, as a whole, become fixed and permanent before they can really enter on the march of mental and moral progress. A similar condition attends the education of the individual pupil. Then order has an important moral bearing. Regularity, punctuality, industry, and obedience, all requiring much self-control, are prominent

features of public schools as now organized and conducted; and how important they are as moral virtues, no reading and thinking man has an excuse for not understanding, since Dr. W. T. Harris gave them this rank and dignity, first in one of his St. Louis reports, and afterwards in a paper read to the National Council of Education in 1883.¹ And this is one side of the case as fully as I need to present it; now for the *per contra*.

Nothing in school management is easier than to overdo order. Particularly is this true in the cases of small children of American ancestry, with a tendency to nervousness. Every man of sense and observation will admit this the moment he reflects on their restless manner, their animal spirits, and their small power of physical self-control.² Such children must have frequent physical exercises while the school hours are passing; also a good deal of liberty when engaged in work at their seats. They cannot be "trussed" like so many chickens. The old-fashioned tests of school excellence, "you can hear a pin fall," or "a watch tick," are most unnatural, absurd, and tyrannical: human nature rebels against such repression. Reasonable order in the school-room, for the most part, must be secured indirectly; it must come as the result of keen interest in the work, and close application to it. What is sometimes called "good order" does not always imply either interest in studies or a good school, since it

¹ *The National Council of Education*, 1883.

² Dr. G. Stanley Hall gives this bit of description: "I have seen a file of one hundred and fifty small German boys just as they marched out of the school house at noon, almost unbroken a quarter of a mile away; and I observed several hundred little girls at the Victoria School in Berlin, during an outdoor recess, and did not see one run a step or do anything a lady ought not to have done, although they were allowed perfect freedom."—Aspects of German Culture, p. 306.

may be secured by extreme repression; but interest and application are pretty certain to lead to good order. In other words, order should be largely spontaneous. In the long run, that teacher will best succeed in securing it who says little about it. Even grown persons who are consciously trying to keep still find it difficult to do so. How hard many find it to sit for a photograph! The boy whose business is to be quiet is likely to make a great deal of noise while about it. Moreover, a positive direction or order to keep still, given to any assemblage, tends to provoke nervous and muscular movements. Great audiences are as still as death, not when the orator is descanting on order and stillness, but when he loses himself and them in his subject. Hence attempts to secure order should not be thrust into the faces of children. Wendell Phillips tells an anecdote of a judge who said to the crier of the court, “Mr. Crier, you are the noisiest man in court, with your everlasting shout of ‘silence!’” So it is in some schools; the teacher with her sharp cries, “attention!” “position!” causes, directly and indirectly, more nervousness and confusion than all the scholars put together. I have heard children say, “I cannot keep still in *that* school.” But while the order of school should be mostly spontaneous, and therefore unconscious, I know full well that often the teacher must take a pupil, and even a school, in hand, and bring about the desired result by direct means.

But there is another view of the subject, second to no other in importance. A good teacher must possess two great qualities; the power to govern or manage, and the power to instruct and develop the child. That the second of these is the greater power, is as clear as that the first is often more highly valued. Unfortunately, there are teach-

ers of good abilities, excellent character, fine education, apt to teach, and of admirable influence on mind and heart, who are not gifted as managers. Some are even weak. In time they may establish their influence in the school, but they cannot walk into the room and command order with a nod or a wave of the hand. Still more unfortunately, there are other teachers who have large power to manage, but are very poor and weak in intellectual and moral qualities. These teachers, often coarse and ruling by mere animal dominancy, can nod and wave children into enforced subjection, but they succeed indifferently in the real ends for which the school exists. I am fully aware that a certain amount of control is essential to good instruction, and that a teacher who cannot govern, no matter how admirable a person she may be, is a failure; but it has often seemed to me unfortunate that, nine times in ten, the visitor, or superintendent on visiting a school, especially if the teacher be a new one, is first struck by the order and afterwards by the instruction. Then five or ten minutes often suffices the experienced observer to tell whether a school is managed or not, while repeated visits, some of them protracted ones, are necessary to ascertain the character of the instruction along all the lines of school work. Particularly is this true in the upper grades, where the work is widely differentiated. These theoretical views, together with some observation, lead me to two conclusions which, however, are but one at root: That the superintendent, the schoolboard, and even the whole community, are pretty certain to overvalue the managing teacher as compared with the developing teacher; and that, generally, too much attention is given to order as compared with instruction. And still a teacher must govern to a degree or she cannot develop.

This group of topics, which has detained us so long, may be dismissed with these additional remarks: That the public school system of a large city, with its grades, courses of study, teachers, supervisors, etc., is necessarily complicated, and more or less machine-like; that it may easily be made a repressive, oppressive, and deadening machine; and that educational bigots and sciolists will be sure to prostitute it to these ends. No other schools call for more intelligent teachers and supervision. It was once said of a great national church that abounded in mechanical elements: “When once this vast organization, with its minuteness of ritual, ceased to be constantly vivified by the breath of prophesy often passing over it, like a divine whirlwind, to shake its entire fabric, its tendency was to petrify into immobility.” Something like this will happen to the public schools almost the very hour that they cease to feel the vivifying breath of public discussion.

One thing more and I am done. More than anything else in the world, education is a matter of men and women. No matter what school topic we raise, it soon passes into the concrete. Courses of study and methods of instruction lead quickly up to the question, “Who are to do the teaching and supervising?” All contemplated reforms resolve themselves into the teacher-question. Like other instruments of vast power, the public-school system may be greatly abused; and whether it is or not, will depend, in the first place, mainly on the intelligence, education, and devotion of teachers and supervisors. To aid in solving this problem, such associations as yours exist and such meetings as the present one are held. I can leave with you no larger hope than this—that in your efforts to solve the problem you may meet your fullest expectations.

VI

PRESIDENT ELIOT ON POPULAR EDUCATION.¹



HE FORUM for December, 1892, contained one of those vigorous articles that President Eliot, of Harvard University, occasionally contributes to current educational literature.

Beginning with the averment that there is serious and general disappointment at the results of popular education up to this date, although many countries have now systematically provided such education for all children for more than two generations at great cost and with a good deal of enthusiasm, he proceeds to sum up with a strong hand the current criticisms of universal education as a cure for ancient wrongs and evils. The following summary will give a fair view of the scope and content of this arraignment:

(1) General education does not promote general contentment, and so fails to secure public happiness. (2) People in general are hardly more reasonable in the conduct of life than they were before free schools, popular colleges, and the cheap printing press existed, as is shown by the currency of obscene books and pictures and low novels, by the number and success of quacks and impostors, by the general acceptance of popular sophisms and fallacies, and by the cyclones of popular folly that beat upon the ship of state. (3) Lawless violence breaks out

¹ A paper read before the Principals' Association of the city of Chicago, February, 1893.

just as it did before there were common schools; the Jews are still ostracized in Germany and in New York, and are robbed and driven into exile in Russia. (4) New tyrannies are constantly arising, the tyrant being sometimes a majority of voters, sometimes a combination of owners, contractors, or workmen, sometimes the walking delegate. Popular elections are conducted in an irrational manner, votes are still purchasable, and the average voter is an intense partisan. (5) Society does not tend toward a greater equality of conditions; the distinctions between rich and poor are intensified, and education does not procure for the wage-earner exemption from exhausting toil. (6) The rich man refuses to accept responsibility with his wealth ; he gives or withholds employment as he pleases, and, irrespective of education, is just as selfish and luxurious in his habits as was his predecessor in former centuries who could not write his name. (7) War is more destructive than ever; the nineteenth century is the bloodiest of all the centuries; the world has never before seen such man-slaying machines as are the great armies that Europe is now supporting, while the American Republic is expending more money on pensions than France or Germany expends on her army. (8) The conditions of employment have not been made more humane and comfortable; almost all services and industries are organized on the brutal principle of the dismissal of the employed by the employer on the briefest notice, and the tenure of employment during efficiency and good behavior is the privilege of an insignificant minority of well-to-do people.

A moment's reflection suffices to show that this formidable indictment includes much more than the existing education,—that it is, in fact, an indictment of what we

familiarly call modern progress. President Eliot does not endorse all the counts that have been enumerated; he spreads them over four pages of "The Forum," and then tells us that they exaggerate existing evils and leave out of sight great improvements in social conditions which the last two generations have seen. But, unfortunately, he leaves us in doubt as to the extent of such exaggeration. Still, he devotes a page or more to stating some of the beneficent changes that have been effected in the social economy in the last seventy years. He mentions the mitigation of human miseries resulting from the reformation of penal codes and prisons, the institution of reformatories and hospitals, and the abolition of piracy and slavery. He says that savings' banks and other similar institutions have promoted habits of industry and frugality; that the condition of most laboring classes in society has been ameliorated in respect to earnings, hours of labor, lodgings, food, and clothing, while means of education for their children have been multiplied and family and school discipline have been mitigated, and all sorts of abuses and cruelties have been checked. Further, almost all business is conducted nowadays on faith, which is based on the inherent moral qualities of the race that general education reinforces and fortifies; freedom of intercourse has been amazingly developed; progress has been made toward a genuine unity of spirit among classes and peoples; and while war has not ceased, soldiers are more intelligent than they once were. The industries and trades also require more intelligence in work people than heretofore. He adds that while popular education has not effected all these changes, it has contributed to them all.

How far he considers the social improvements and ameliorations that he enumerates a set-off to the criticisms

on the schools that he marshals, President Eliot does not say. While it is manifestly impossible, in such a case, to speak in quantitative terms, it must be clear to every reflecting mind that they are a set-off to a very great extent. For example, the particular facts stated in regard to the improved condition of work people largely neutralize the general statements previously made about the relations of capital and labor and of the extremes of society. And here it is pertinent to say that if President Eliot had been content to submit a summary of the criticisms on the current education that he thinks true and important, with reasons for his opinions, instead of resorting to the cumbrous method of the courts of law—first filing an indictment and then a partial answer—he would have rendered the cause which he wishes to promote a much more valuable service, especially as he dismisses the case without any summing-up whatever. Had he done this, he would have found his task more difficult. He would have found it necessary carefully to consider what popular education may justly be expected to accomplish for society,—a phase of the general subject that, at the present time, is second in importance to no other phase that can be mentioned. That a multitude of people, if not indeed a large majority, entertain exaggerated ideas of the function, and so of the usefulness, of popular education, he appears to perceive; for he says, in the wisest paragraph of his whole article, that it is somewhat comforting, while brooding over the educational failure, to recall that society had already had similar disappointments, accompanying the remark with two well-chosen examples. Unity of religious belief, instead of bringing the ideal social state that many persons expected it to bring, brought rather persecutions and desolating wars of religion; while popular government has come far short

of realizing the almost infinite possibilities that democratic optimists believed it contained at the time when modern society was first entering into the enchanted land of Liberty, Equality, and Fraternity. Than these, he could not have drawn more impressive lessons pertinent to the question from the records of social experience; they deserve more emphasis than he gives them; for, if the Christian Church and democratic government are to be measured by the high standards that many enthusiastic souls have set up for them, they are more disheartening failures than popular education, even when it is treated in the same manner. The New Testament teaches that the Christian religion came down from above, and that it will thoroughly furnish men unto all good works; and nothing is easier for a man who accepts this view than to conclude that its general introduction into the world would certainly usher in the millennium, provided only he overlooks the fact stated by St. Paul: "For we have this treasure in earthen vessels." Then put the government of the City of New York or of the City of Chicago alongside of what the democratic prophets were saying about democracy a century ago: The democratic theory is that government is proximate to all the great interests of human life; that men generally, or at least a great majority of men, will actively bestir themselves to secure good government whenever they can make their power felt, and that, therefore, nothing is wanting to secure such government but the creation of the required political conditions. Well, in the United States we have now been trying the experiment for more than a hundred years under the most favorable conditions that ever existed; and we have been compelled to learn, as Dr. Eliot puts it, that "universal suffrage is not a panacea for social ills, but simply the most expedient way to enlist the interest and support of

us all in the government of us all." That is, we have learned that democratic government is not a perpetual motion. Democracy is the doctrine of averages applied to public affairs; and there is no reason to expect that, in the long run, it will produce government that is superior to the average intelligence or morality of the nation. The belief of the most advanced peoples now is, that elementary instruction should be made universal, irrespective of sex, class, or condition, and that the means of secondary and higher education should also be liberally furnished; some of these peoples have now been acting on this theory for a long time; and, considering the part that knowledge and intellectual power are commonly supposed to play in the economy of human life, it was natural that most men should antecedently think that the final result would be a social transformation. Although we have not yet reached the goal of universal education, we have gone far enough towards it to see that it will not prove a panacea for social ills, but that it is simply the most effective means yet devised for diffusing intelligence, and so for partially freeing men and society from the dominion of folly, ignorance, and passion, thus making life less bestial and more human than it was before. It was never reasonable to expect that it would cure all our political sicknesses and correct all our social disorders.

The panacea tendency in human nature, arising from the force of conservative habit, is very strong. "Each age," says Mr. Mackenzie Wallace, "has its peculiar social and political panaceas. One generation puts its trust in religion, another in philanthropy, a third in written constitutions, a fourth in universal suffrage, a fifth in popular education. In the Epoch of the Restoration, as it is called, the favorite panacea was secret political association."¹

¹ *Russia*, p. 393.

The public school is the panacea in which we Americans have been putting our trust, and we are now waking up to the fact that it is not doing the work that we have confidently expected it to do. This is a very painful, but also a very important revelation, and it is very desirable that it shall soon be followed by the further discovery that it can never be made to do all that work. Society, having produced at great cost a system of public instruction, seems determined to thrust upon it burdens it cannot carry. Most of our Catholic brethren, for example, will not use the public school, save as a *dernier resort*, because it does not teach dogmatic religion: as though such a thing were possible in a democratic country! Some people blame the school because it does not make the pupils, or at least most of them, moral: as though the school could take the place of the family and the church! Some persons say the school does not fit pupils for practical life, and President Eliot charges that it does not equip them for dealing with the economical and financial problems that vex the country. And yet on this point he himself once wrote: "Many persons hold that the Republic can be saved by primary education, but the most despotic government in the world — that of Germany — is that where primary education is most widespread." He seems, however, immediately to have forgotten Germany, for he proceeds to say: "Despots can reconcile themselves to universal primary education, but cannot overcome the influence of universal education of a higher type. Well conducted superior education — the training in knowledge, in writing, and speaking, of the natural leaders of the people — is the need of the country."

It is worth observing that even men of cultivation tend to invest certain human institutions with very exalted at-

tributes. The church, the government, and the schools of learning are spoken of as though they were something superior to general society; something partially or wholly separate and apart from it; and as though they should, therefore, be free, in large measure, from the weaknesses and vices that belong to the mass of mankind. A moment's reflection should teach men of even average education that clothing human organizations of any kind with a highly superior intelligence, wisdom, and skill when, by reason of numbers, they are in close touch with the great body of society, is arrant folly. For brief periods governments have sometimes risen far above the level of the humanity in the midst of which they have existed, as in the persons of Charlemagne and Alfred, but these are the exceptions that prove the rule. Of all the uplifting powers that have ever acted upon the course of civilization, the most beneficent have been the mind and the heart of Jesus of Nazareth; for almost nineteen centuries they have been instructing and inspiring the most progressive races of men; and yet even the tyro in historical studies knows that from the moment when the Christian Church first embraced a large section of human society to this day, it has responded more or less completely to the evil influences and tendencies of both time and country. What an interval there is between the barbaric church of Abyssinia and the purest forms of American Christianity !

Probably it will be said that these analogies do not hold in the case of elementary schools. The teacher, we are told, works upon plastic material; he is the potter, the child the clay, and so he is answerable for the vessel, whether it be one of honor or of dishonor. Even philosophers, to express their estimate of the educational function, have used language that cannot be endorsed.

Leibnitz.—"Entrust me with education, and in less than a century I will change the face of Europe."

Descartes.—"Sound understanding is the most widely diffused thing in all the world, and all differences between mind and mind spring from the fact that we conduct our thoughts over different routes."

Locke.—"Out of one hundred men, more than ninety are good or bad, useful or harmful to society, owing to the education they have received."

Helvetius.—"All men are born equal and with equal faculties, and education alone produces a difference between them."¹

It is not proposed to traverse these opinions, except to state two things. The first is, that they belong to the rhetoric and not the science of education. It is, no doubt, wise for the teacher, and probably for others also, to magnify the educational function; but to magnify it to the extent of practically denying that heredity is a great factor in human life, not to speak of equalizing the faculties of men, is to set at nought the stubbornest facts and also to invite defeat in the pedagogical field. The second observation is, that school education is quite limited as compared with the whole field of human culture. No matter how good schools may become, they will never supply to the mass of men the major part of the knowledge and discipline that is necessary for a well-ordered life.

It is worth while to make more diligent inquiry concerning the relations of the school to the other agencies of human cultivation. Of all writers known to me, Dr. W. T. Harris has best answered this question. "The four cardinal institutions of human civilization by which

¹ See Ribot: *Heredity*, p. 347.

man realizes his ideal and educates the individual into that ideal," he says, "are the family, civil society, the state, and the church." Each of these institutions has a special phase of education all its own, whose functions cannot be performed by another." As a matter of course, these institutions somewhat overlap and supplement one another. The survey is complete, but the school has not been found; it is not a cardinal institution of society, as is shown by the fact that men so long did without it. Dr. Harris thus defines the province of the school:—

Education in its most obvious signification as the transforming influence which the great social institutions—family, civil society, nation, and church—exert on the individual in order to convert him from a savage into a civilized being, reinforces its more general educational instrumentalities by a special institution, the school.

The school is established for the training of youth morally and intellectually in a direct manner by the influence of the teacher. The school forms a supplementary special institution whose place or order is found between the family and civil society. It comes partly after the first stage—that of family nurture—and partly contemporary with it, and usually precedes the era of the education of civil society, namely for an independent vocation, work or business.¹

To assist the cardinal institutions of civilization is the sphere and function of the school. It is one of the numerous products of division of labor, effected long after the beginnings of human cultivation; it has very materially lightened the work of the cardinal institutions, and has performed much of that work in a far better manner than it had been done, or now could be done, without it; but all attempts, whether arising from a decline of interest in

¹ See the *Report on Pedagogics* made to the National Council of Education at Madison, July, 1884, found in *The Proceedings* of the Council and in *The Proceedings* of the National Educational Association for that year.

those institutions, or from enthusiasm for schools, to thrust this secondary agent into their places, and to demand that it shall do all, or nearly all, of the educational work, must necessarily result in hopeless failure and bitter disappointment. It is hard for an observing man to resist the conclusion that society has been tending strongly in that direction. There is reason to think, in particular, that certain well-known causes—such as the development of specialization in all directions, growing love of ease and enjoyment on the part of the well-to-do classes, and increasing competition in business—are materially weakening the family in more ways than one. At all events, it can never be impertinent to observe that this primordial institution cannot devolve its educational functions and duties upon churches and schools, no matter how good the churches and the schools may be.

Let it not be said that these fears are groundless. Professor Laurie, of the University of Edinburgh, says in a late article: "Mothers of the wealthier classes will tell us that they have no time for the training of their children; the demands of society are too exacting to admit of it. The day will come, if the race is to make progress, when it will be the other way about, and society will have to content itself with taking a second place, while the duties of the nursery and the parlor will make good their prior claim."

It is not my purpose to belittle the offices of the teacher and of the schools; rightly considered, those offices are of very great importance. Neither do I wish to depreciate what the teacher and school have done for society; they have been of incalculable benefit. Even in the field of morals, where there is so much criticism, it is my firm belief that the school is performing its duties quite as well as the family or the church. Take the

children of a large city for example; where else do tens of thousands of them learn such valuable lessons in punctuality, regularity, obedience, industry, cleanliness, decency of appearance and behavior, regard for the rights and feelings of others, and respect for law and order as in the public schools? Nay, more; where else do many of them learn any valuable lessons on these subjects? Nor do I wish to turn aside from the schools the force of merited criticism; there can be no question that they stand greatly in need of improvement. Least of all do I wish to imply that Dr. Eliot shares the highly extravagant ideas concerning the office of the school that are so current, and yet even his ideas are extravagant. My purpose is rather to reduce the popular estimate of the school as an engine of individual and social improvement to something like just measure. It is high time that we should have a fuller discussion than we have ever yet had of the limitations of the teacher inhering in the abilities of children, in the facts of social life, and particularly in the nature and office of the school itself.

Dr. Eliot presents in numbered order the main operations of the mind that systematic education should develop in an individual in order to increase his general intelligence and train his reasoning power. The first of these processes or operations is observation; the alert, intense, accurate use of all the senses. The next operation is the function of making a correct record of things observed. Then comes the development of the faculty of drawing correct inferences from recorded observations, the faculty of grouping or coördinating and comparing facts, and of drawing from them sound and just conclusions. Fourthly, education should cultivate the power of expressing one's thoughts clearly, concisely, and cogently. Observing

accurately, recording correctly, comparing, grouping, and inferring justly, and expressing cogently the result of these mental operations—these are the things in which a man must be trained in youth, if his judgment and reasoning power are to be systematically developed. Let it be observed that the emphasis is here placed where it rightly belongs; on discipline or power and not on information or attainments in knowledge. Then the four points are well chosen; to develop the powers mentioned is the primary end to be promoted by schools and teachers, and we may justly call a school or a school system that falls far short of its duty in these particulars a failure. Still, we must not overlook the ideas of relation and measure. The question arises, How much can the elementary school do to teach the pupil to observe, to record, to infer, and to express? Of course, the answer can be only an approximate one, but even that President Eliot does not give, save indirectly. He rather reviews the staples of instruction in the elementary schools, and pronounces the results meagre and unsatisfactory. The acquisition of the art of reading is mostly a matter of memory, he says; the same must be said of writing; as to English spelling, it is altogether a matter of memory; geography, as commonly taught, means committing to memory a mass of curiously uninteresting and unimportant facts, while arithmetic is the least remunerative subject in elementary education as now conducted. This is certainly a discouraging inventory. Drawing, manual training, kindergarten work, and lessons in elementary science are dismissed with observing that they are recent additions to the school course, that they occupy but a small part of the whole school time, and have not yet taken full effect on the men and women now at work in the world. No attempt is made to estimate the value of

these observational studies. Not a word is said about the language, the composition, the grammar, or the history; the last two he would, no doubt, dispose of much as he disposes of geography and arithmetic.

Now it must be admitted that the elementary teachers of the country fail to get out of the school studies the disciplinary value there is in them. Reading, geography, and history may be particularly mentioned. Still, it must be said that President Eliot's handling of the studies that he mentions does not do justice to the work that is now accomplished, apparently because his standard is too high. Speaking of the whole educational system from top to bottom, he says "the art of expressing one's thoughts clearly and vigorously in the mother tongue receives comparatively little attention." I do not undertake to say how the young men who now enter college compare with those who entered it a generation ago, or how the more cultivated classes now and then compare in respect to ability to write the English language; but there can be no question that the mass of the people write English better at present than they ever did before.

The judgment pronounced upon secondary and higher education is not more favorable than that upon elementary education. Here a large part of the time is given to the study of languages, which, as usually conducted, does little for the pupil but develop his memory. It is a rare teacher of languages, we are told, who makes such teaching the vehicle of much thinking. Nor do the other studies exercise any of the mental faculties vigorously but the memory. In the higher institutions the cultivation of the memory also predominates; the observing, inferring, and reasoning powers are subordinated. How far these criticisms are true is a matter of opinion, but the common opinion of educated men is no doubt con-

siderably more favorable than Dr. Eliot's. He lays deserved stress upon the proposition that the educational value of a subject depends very largely upon the way in which it is taught. "No amount of *memoriter* study of language, and no attainments in arithmetic," he says, "will protect a man or woman—except imperfectly through a certain indirect cultivation of general intelligence—from succumbing to the first plausible delusion or sophism he or she may encounter. No amount of such studies will protect one from believing in astrology, or theosophy, or free silver, or strikes, or boycotts, or in the persecution of Jews or of Mormons, or the violent exclusion of non-union men from employment." This is all as true as true can be, and it brings us at once to the questions: What changes should be made in our *curricula* and methods of teaching in order to get a fuller development of the powers of judgment and reasoning? How can the school better equip the people of the land to deal with the dangerous sophisms and fallacies that afflict society? We anxiously turn Dr. Eliot's pages to catch his answer to these important questions. His formal prescription embraces seven items.

(1.) We must make practice in thinking a constant object of instruction from infancy to adult age, no matter what may be the subject of instruction. (2.) Wise extension can be given to the few observational studies already introduced into the early school grades. (3.) More time can be given to the practice of descriptive and argumentative writing. (4.) Those subjects that give practice in the classification of facts and in induction must be taught in schools, not from books, but by laboratory methods. (5.) Not only should the time devoted to historical studies for older pupils be much increased, but the

method of teaching them should be so changed as to discipline the logical powers of the mind. (6.) In the higher part of the system of public instruction, political economy and sociology should receive much more attention than at present, and should be taught as disciplinary subjects. (7.) Concrete argumentation should be taught in schools by taking up and analyzing arguments that have actually determined the course of trade, industries, and public affairs, such as Burke's Speech on the Conciliation of America and Webster's Reply to Hayne.

The first remark that this prescription calls out is, that for the last twenty years our pedagogical writers and lecturers, almost to a man, have laid constant stress upon the cultivation of the powers of observation, judgment, and inference. "Do not cram but develop," has been more thoroughly dinned into the ears of teachers than any other single pedagogical precept that can be named, and if little is now accomplished in the schools but to cram the memory the educational outlook is not encouraging. President Eliot's remarks might lead one to assume that, relatively, the pupils of the schools are now full of empirical knowledge,—real store-houses of information—which every person familiar with the facts knows is not the case. The school children of the land do not know any more than they ought to know.

The second observation is, that the current belittling of the memory is largely unreasonable and mischievous. To exalt the logical faculties is all right; to belittle the faculties of retention and reproduction is all wrong. It is not impertinent to say that if a man has a fine memory, there is no reason why he should be ashamed of it. Professor James may be quoted on the broader aspect of this subject,

No one probably was ever effective on a voluminous scale without a high degree of this physiological retentiveness. In the practical as in the theoretic life, the man whose acquisitions *stick* is the man who is always achieving and advancing; whilst his neighbors, spending most of their time in relearning what they once knew but have forgotten, simply hold their own. A Charlemagne, a Luther, a Leibnitz, a Walter Scott—any example, in short, of your quarto or folio editions of mankind—must needs have amazing retentiveness of the purely physiological sort. Men without this retentiveness may excel in the *quality* of their work at this point or at that, but will never do such mighty sums of it, or be influential contemporaneously on such a scale.¹

This point having been duly guarded, there is no reason why we should not accept President Eliot's prescription and thank him for it. Still the question arises, How far are his ideas practical?

In the first place, all those suggestions that relate exclusively to the real higher institutions of learning can be fully carried out. It is very desirable to qualify the liberally educated men of the country to do sounder thinking than they now do on political, social, and economical subjects. At present, as is well known, students graduate from college, excellent linguists, chemists, or mathematicians it may be, whose opinions on such matters are little better than childish. More than this even, the same is true of many scientific specialists and other professional men. Still more difficult is the question that relates to the elementary and the high schools. Relatively, but few American youths go beyond the high school, or even beyond the higher elementary grades; and unless Dr. Eliot's prescription will materially affect these schools beneficially it is not going to do much directly for the masses of the people.

Here we must, in the first place, rule out the last three items of the prescription. Even secondary pupils cannot

¹ *Psychology*, Vol. I, p. 660.

carry on the higher historical studies; they can do nothing with sociology or political economy, save in the most empirical fashion, and while they will admire the declamatory passages of great speeches, like Burke's and Webster's, they cannot follow the argumentation.

In the second place, much the larger share of the improvement to be effected in these schools must come from better teaching of the old and tried subjects. In the early grades, and indeed to the end of the grades, great stress must be laid on the memory. Only in this way will the child retain what he is taught and what he learns for himself, and thus accumulate a store of material upon which he can exercise his powers of comparison, judgment, and inference. All the higher mental operations are dependent upon retention and reproduction. Stimulation of the logical faculties should begin with the first grade, and should become more and more energetic as the pupil ascends the grades. A great deal of work must be done in school that involves but little intelligence, as to acquire the mechanical elements of reading, spelling, and writing; but such studies as reading, composition, geography, history, mathematics, elementary sciences, literature, and language can be made disciplinary. Language as the substance of thought is more important than language as the form of thought, or as a fine art. The teacher of Cicero should require his pupils to follow the sequence of the argument, as well as to observe the grammatical construction of the language in which it is clothed. Besides, while pupils in the upper grades and in high schools can no more carry one of Webster's constitutional arguments than Milo could have shouldered the ox the first morning that he lifted the calf, they can deal with inferior but still useful forms of argumentation.

Whether the so-called observational studies, such as drawing, manual training, and elementary science, should receive considerably more attention than at present, I am less anxious to inquire than I am to examine an assumption underlying the affirmative reply that is often given to it. This is the assumption that the mental forces, like light, heat, and electricity, are convertible one into another; or, perhaps it were better to say, that mental power is fully generic.

Power or skill resulting from any kind of exercise may be considered under two aspects, one specific and one generic. The strength that a gymnast accumulates in bowling is all usable in bowling, but it is only partially and secondarily usable in running or in rowing. The power engendered by solving mathematical problems can all be employed in carrying on mathematical work, but only a part of it is available in studying language or history. The extent to which power created by such exercise is convertible — that is, the extent to which it is generic — depends largely upon the degree of congruity existing between the first and second forms of activity. Plainly, if a man's powers were fully convertible they would all be equal. Such, briefly stated, is a law that is not sufficiently regarded either in educational practice or in educational discussion. This law President Eliot sometimes seems to have distinctly in mind. He says, for example, that no amount of memoriter study will directly arm a man against astrology, theosophy, free silver, strikes, boycotts, or the persecution of Jews and Mormons. "One is fortified," he goes on to say, "against the acceptance of unusual propositions only by skill in determining facts through observation and experience, by practice in comparing facts or groups of facts, and by the unvarying habit of questioning and verifying allegations, and of

distinguishing between the facts and inferences from the facts, and a true cause and an antecedent cause." While this is excellent, he should have added that skill acquired by observing facts of one kind and by drawing inferences from them, is not wholly convertible into skill in dealing with a different kind of facts. Of course, observation, comparison, and inference are much better than memory in such case. But again, he sometimes seems wholly to lose sight of the law of specific and generic results. He says the savage has abundant practice in observation, for he gets his daily food only by the keenest exercise of his senses. It may be said with equal truth that the savage's boasted power of observation is a specialized and therefore a limited power; introduced into London, the savage is far less observant than a cockney, and left to himself would soon starve to death. Again, we are told "that it does not matter what subject the child studies, so that he studies something thoroughly in an observational method. If the method be right, it does not matter among the numerous subjects well fitted to develop this important faculty which he chooses or which be chosen for him." This may be true as respects method; but there is no method of observation that can take the place of personal contact with the facts themselves. While precision, patience, and verification are of general value, it would be very far from true to say that good scientific observers, in their several fields, are necessarily good observers in respect to politics, manners and customs, and business affairs; or *vice versa*. It is indeed a question how far habits of observation formed in the fields of nature serve a man in the fields of humanity. And so it is with the logical faculties. There is no method or form of observation or reasoning that a man can acquire and then effectively turn, like a swivel gun, in any direction that he pleases.

We are therefore led to ask, How far can the studies now taught in schools be made directly to qualify pupils to deal with the highly special and concrete delusions and fallacies that President Eliot enumerates? First, however, let it be said that if any one doubts the validity of the conclusion that has been reached in regard to the specific and the generic, he should ponder such questions as these: Are mathematicians less liable to fall into popular delusions and sophisms than philologists? Do chemists enjoy any special immunity from fiat money and free silver? Are physicists, botanists, geologists, and astronomers particularly skillful in reaching sound conclusions in regard to strikes and boycotts? Has the persecution of the Jews in Germany been confined to men taught in the humanistic gymnasia? Have students trained in American schools of science shown special aptitude in dealing with the Mormon question? In general, are those persons who cultivate the observational studies particularly expert in escaping the snares that bad politicians and other charlatans set for our feet? No disparagement of scientific studies or of scientific methods lurks in these questions; their sole purpose is to show that the relation of these studies to social affairs, outside of special lines, is less intimate than many people assert.

Only practice in observing, comparing, and judging human facts — facts into which freedom, and so probability, enter — can fit a man in an eminent degree for dealing with social delusions and fallacies. The school studies that lie proximate to such experience as this in the field of real life, fall into the historical and philosophical groups. The student who has rightly studied history, sociology, and political economy should be able to deal effectively with social and political questions; but even these studies will not confer the power to do so if they are

pursued in a merely formal and abstract manner. The studies that lie outside of these groups can equip the citizen for social and political action only imperfectly, through a certain indirect cultivation of general intelligence and logical acumen. Some studies will do more in this direction, others less; but the more closely they relate to humanity, the more they will do. This is why literature properly taught is so valuable as a discipline.

Shall we then enlarge the kindergarten work, the drawing, and the manual training in the public schools? While much can be said in favor of the proposition on some grounds, I fear that little can be said on the ground that these studies will quickly bring the free-silver prophets to confusion, or that they will afford increased security for the Jews in Berlin or for the Mormons in Utah. Let the man who disputes this judgment show how handling the "gifts," or doubling up pieces of colored paper in a kindergarten, or how drawing, or handling ax, hammer, and saw in a manual training school, lightens his pathway when he walks up to the ballot-box on election day. Are union workmen in paper-box factories more regardful of the rights of non-union workmen than union men in other industries? Do men who handle tools never strike or engage in boycotts? Are engineers who use drawing instruments panoplied against astrologers and fortune-tellers? And do they never accept absurdities in regard to the origin of the English system of weights and measures or of the Great Pyramid?

Then it should be remarked that superior mental maturity and superior instructors are not the only advantages which college students enjoy over students in lower schools; there is also more liberty of thinking. Notwithstanding the efforts that newspapers, politicians, and occasional patrons have sometimes made to put stoppers in the

mouts of professors of political economy, there yet exists a large measure of academical freedom. Still, some professors feel it necessary to be circumspect in dealing with certain economical and financial fallacies that threaten society. And it would hardly be safe to introduce into the public high schools a course entitled "Popular Delusions." In those schools a teacher could, no doubt, work his will upon the tulip craze, the Mississippi Scheme, the South Sea Bubble, Continental money, *multicaulis*, and blue glass, but prudence would counsel him to deal gently with protection and free-silver, and to leave theosophy and Christian Science wholly alone.

The standard of measurement for the schools that President Eliot sets up is the qualification of those who have attended them to discharge their social duties and to deal with social and political problems. He never tires of telling us that the schools do not prevent strikes and boycotts, fallacies relating to silver and the tariff, theosophy and Christian Science, or drive astrologers and bone-setters out of business. This test, although a severe one, is perfectly fair when it is properly explained and qualified. Assuredly, unless society is becoming more reasonable and human the State has little encouragement to persevere in providing free education for the people. However, to measure the extent to which popular education has qualified the masses of our people to deal with social fallacies and delusions is a difficult undertaking. It is also an undertaking that cannot be entered upon in this place, but two facts or groups of facts may be stated that will at once show why it is difficult, and also explain in part why greater progress has not been made in that direction.

First, the social and political problems that arise in a large and highly organized society are never easy. To

deal with them effectively is the highest test of knowledge and mature discipline. They are not questions for boys or half-educated men, but for well-educated men; at least this is true of the more difficult of them. For example, there are few men at any time who are competent judges of a revenue, educational, or financial system. Of those who hold what Dr. Eliot would consider sound opinions on the currency, a majority are largely guided by authority. Besides, the enormous social and political changes that have been accomplished in a hundred years, and notably in our own country, have greatly increased the number and difficulty of such problems. Such causes as the growth of knowledge, the progress of invention, the extension of the area of civilization, the increase in the numbers and in the density of our population, have added immensely to the scope and complexity of society. In respect to commerce and trade, industries, the division of labor, education, transportation, literature and the press, benevolent and reformatory agencies and institutions, social life, and the distribution of wealth, how wonderfully heterogeneous American life has become! Could the Americans of the last century be suddenly introduced to the America of to-day, they would show a confusion similar to that shown by savages when conducted through the streets of a great city. The country moves at such speed that even well-educated men cannot maintain the pace and keep fully abreast of the questions and issues that concern them. The work of legislation constantly becomes more difficult and trying both in quantity and quality. Compare the legislation enacted by the General Court of Massachusetts, or by Congress, in the year 1792 with that enacted in 1892. Still more, compare the legislation proposed in the first year with that proposed in the second. Nor does the constant enlargement of our admin-

istrative and judicial systems prevent increasing complaints of poor and insufficient service.

Secondly, at the same time that our society has been becoming more and more heterogeneous it has been becoming more and more democratized. Many conservative checks and balances that existed a century ago have been swept away and others have become mere fictions. For the first time in history a democracy of sixty-five millions of people, far advanced in social differentiation, is acting upon the stage of the world's affairs. Still more, since democracy tends to weaken authority, expert knowledge and opinion are generally undervalued. No doubt twelve Americans sitting in a jury-box pay as much heed to a chemist who swears that he found arsenic in a dead man's stomach as the same number of Frenchmen or Germans; but they certainly pay much less heed to educational and financial experts. The result is, that we cannot always command the best knowledge or the best thought that is current. For instance, the courses of instruction sent out by ministers of education from Paris, Dresden, and Berlin better represent the highest pedagogical thought of France, Saxony, and Prussia than those adopted by our thousands of school boards and school committees represent our highest thought. The German States manage their educational affairs and their financial affairs better than we manage ours; but who, for a moment, supposes that a democratized German nation, holding such vast interests as ours in the hollow of its hand, and also such vast resources, would conduct them with more intelligence and reason? It is further to be observed that a democratic society where elementary education is universal, is the best possible hotbed for the generation of crude theories, specious sophisms, and delusive hopes, particularly when human possibilities are so great as in the United States.

The Athenians were the freest, the most intellectual, and the best educated people of antiquity: Athens also afforded the rhetorician, the sophist, and the demagogue unrivaled opportunities.

Then it must not be forgotten that other factors than reason and knowledge play an important part in human life. Not many of the sophisms that ensnare men really have their tap-roots in bad thinking; for the most part they spring out of the interests, feelings, and passions of men. "The human understanding," says Lord Bacon, "is no dry light, but receives an infusion from the will and affections; whence proceed sciences which may be called 'sciences as one would.' For what a man had rather were true he more readily believes. Therefore he rejects difficult things from impatience of research; sober things, because they narrow hope; the deeper things of nature, from superstition; the light of experience, from arrogance and pride, lest his mind should seem to be occupied with things mean and transitory; things not commonly believed, out of deference to the opinion of the vulgar. Numberless in short are the ways, and sometimes imperceptible, in which the affections color and infect the understanding."¹ Another Baconian phrase is "drenched and blooded;" and a recent writer, applying it to philosophies of life, says it is hard to decide how much is observation and how much hope, and whether the life is more determined by the philosophy or the philosophy by the life.² Herbert Spencer thus expresses the same fact, perhaps in an exaggerated form: "Ideas do not govern the world; the world is governed by feelings, to which ideas serve only as guides."

¹ *Novum Organum*, XLIX.

² Mackenzie: *An Introduction to Social Philosophy*, p. 2.

It is almost needless to remark that the questions which Dr. Eliot uses for illustration are "drenched and blooded" questions. The advocates of fiat-money and free silver, for example, may be roughly divided into the honest and dishonest, the first being much the larger class; but it must be said that the thinking of the honest class is influenced or dominated by interest or other feelings. The subtle fallacies that lurk around the subject of money play with peculiar effect upon a mind that wants to believe them, especially if it is badly disciplined and informed. We may be perfectly certain that sophisms and delusions which ignorance and bad logic have not directly caused, knowledge and good logic will not directly correct. Such correction can be effected only indirectly, by enlarging and purifying the common intelligence.

What follows then? That our social ills are incapable of further amelioration? Not so. Such ameliorations have been effected, and there is no reason to suppose that we have reached their limit. We need not doubt that the American people are managing their affairs better than any people that has preceded them could have managed them; or that, as our education improves in quality, as our civilization becomes more mature, as the people become better able to sift and to winnow what passes for knowledge, and particularly as they are constrained to pay more attention to the experience of the past, they will learn to manage them still better. But there is nothing in human nature or in human experience that points to the conclusion that fallacies, sophisms, and delusions will not always abound, or that education will ever fully neutralize them. Democracy is not a perpetual motion, or education a panacea. On the other hand, the intelligent and reasonable, the wise and disinterested, must always stand guard over the interests of society.

Perhaps it is not impertinent to observe that I have not confined my remarks strictly to Dr. Eliot's article. I have combated views that he has not expressed, and that I have no reason to suppose that he holds. They are views, however, that relate to the topics which he handles. Still more, I have brought forward topics that he has not mooted, because I consider their consideration essential to the full discussion of the main subject.

VII.

THE PEDAGOGICAL CHAIR IN THE UNIVERSITY AND COLLEGE.¹

PEDAGOGICAL instruction has long been given in the principal universities of Germany. Since 1876 the Bell Chairs of the Theory, History, and Art of Education have existed in the Universities of St. Andrews and Edinburgh, Scotland, and still more recently similar chairs have been established in several of the universities of the United States. The object of this paper is to justify the existence of these chairs; not pedagogical instruction or pedagogical chairs in general, but such instruction and such chairs in the university and college.

At the outset, attention may be drawn to three historical facts. Germany leads the world in scholarship and scientific research, and particularly in the cultivation of educational science; Scotland, also, is a classic land of learning and of schools; moreover, our American chairs of pedagogy are a result of the widest and profoundest interest in educational subjects known to our history. These facts are very significant, creating a strong presumption that these German, Scottish, and American professorships are not the result of ignorance or accident, but of a felt need and intelligent choice. From the high

¹ A paper read before the Normal Department of the National Educational Association, Nashville, Tenn., July, 1889.

vantage-ground of this presumption the broader aspects of the subject will be surveyed.

The word "education" is one of the most plastic and flexible in the language. It is used dynamically and statically, in a collective and an individual sense. Excluding all life but human life, also the collective and the static senses, we find the word employed in three different acceptations.

1. The process of transformation wrought in a man by all the agents and powers that act on him, of whatever kind, from the cradle to the grave; as well those that constitute his natural and social environments as those that constitute the home and the school; as well those that are blind, unconscious, and unpremeditated as those that are intelligent, conscious, and premeditated.

2. The process of transformation wrought in a man by the premeditated action of society, with a view of developing his powers and moulding his character; such efforts being put forth more especially in his infancy and youth.

3. The process of transformation wrought in a man, mostly in his youth and plastic years, by governors and tutors, and particularly in schools of some sort.

The first of these definitions includes both the others; the second includes the third. Just how much of the whole field the science of education covers, and whether this science and pedagogy are coextensive, are questions not definitely settled. "A complete history of education," says Compayré, "would embrace in its vast developments, the entire record of the intellectual and moral culture of mankind at all periods and in all countries. It would be a *résumé* of the life of humanity in its diverse manifestations, literary and scientific, religious and political. It would determine the causes, so numerous and so diverse,

which act upon the characters of men, and which, modifying a common endowment, produce beings as different as are a contemporary of Pericles and a modern European, a Frenchman of the Middle Ages, and a Frenchman subsequent to the Revolution.¹ The extreme limits of this field are determined by such inquiries as those that have engaged the attention of Mr. E. B. Tylor and Sir John Lubbock, on the one hand, and such speculations and visions as those of Plato, Gerson, and Swedenborg, on the other. A history of education in this sense would be, as Compayré remarks, "a sort of philosophy of history, to which nothing would be foreign, and which would scrutinize in its most varied and most trifling causes, as well as in its most profound sources, the moral life of humanity."² The university cultivates this vast field, although not under the name of a single science. The chairs of anthropology, history, archæology and antiquities, philosophy, literature, philology, ethics, comparative religion, jurisprudence, economics, and politics mark its most important subdivisions. No one denies the university's right to investigate or teach every one of these subjects. But when, with M. Compayré, we throw out the "*occult coadjutors* of education—climate, race, manners, social condition, political institutions, religious beliefs," and narrow the field to the "premeditated action which the will of one man exercises over other men in order to instruct them and train them"; or when, with Dr. Bain, we throw out still other factors, and confine the science of education to the "arts and methods employed by the schoolmaster," as typifying the educational process in its greatest singleness and purity²—when this is done, is the remaining territory the proper subject of university in-

¹ *The History of Pedagogy.—Introduction.*

² *Education as a Science*, p. 6.

vestigation and instruction? So long as the university investigates and teaches the ideas, habits, customs, governments, and religions of the lowest savages—that is, the whole compass of their culture—it will be difficult to deny its right to treat with equal respect the educational ideas, theories, methods, appliances, and systems of the most highly civilized nations.

By common consent the university has two great functions. One of these is research, the discovery of truth; the other is instruction, the practice of the art of teaching; that is, the university first finds out truth and then gives it forth. The two interact. Furthermore, the university not only practices research, but it makes research itself the object of study and investigation. Science becomes conscious and reflective, and lays bare all her processes and methods. Why, then, should it not investigate and teach its other function, that of teaching? Why should an institution that exists for the sake of investigating the arts and sciences leave its own peculiar art neglected and despised?

But education is much more than a great and difficult art: it is a noble science. Back of its methods, processes, and systems are facts, ideas, principles, and theories—in fact, whole systems of philosophy. As Rosenkranz remarks, pedagogy cannot be deduced from a single principle with such strictness as logic and ethics, but is a mixed science, like medicine, deriving its presuppositions from other sciences,¹ as physiology, psychology, logic, esthetics, ethics, and sociology. It is therefore conditioned on some of the noblest of the sciences, especially those of the moral group. The very fact that it is a mixed

¹ *The Philosophy of Education*, p. 1. Translated by Anna C. Brackett.

science adds to its difficulty, and emphasizes the demand for its cultivation. It is hard to see how the university, whose admitted function is education, can pass by the science, art, and history of education without discrediting its own work and virtually denying its own name. To practice the art while refusing to cultivate or teach the science of teaching, is little better than rank empiricism.

The last argument derives additional strength from the peculiar stage of education upon which the foremost nations and countries have now entered. Education has at last reached the reflective or scientific stage. Throw-ing off the clutch of the empiricist, she has ascended to her long-vacant seat in the family of the sciences. Evidences of this are the increased attention paid to education by text-writers on psychology and ethics, the later pedago-gical literature, the more systematic and rational methods of instruction in schools, and the rapidly-increasing facil-ities for teaching educational science. Thus the very existence of the chair is a proof of its usefulness and its necessity. On this ground alone—indeed, on the nar-rower ground of endowing research—the chair can be fully vindicated.

Again, education has a history. In the very broadest sense, as we have seen, the field of educational history is the field of human culture; and even when limited, as before, to the conscious work of teachers in schools, it still presents whole series of facts, problems, and lessons of the greatest interest and importance. Before the teacher lies the whole field of school-life, from the simple prophets' and priests' schools of early times to the highly developed schools and school systems of Europe and America. While education belongs to general history, the study of which is pursued for its culture value, it has been almost wholly neglected. The writer and lecturer

on general history do indeed touch the education of the ancients, and make mention of the Medieval universities; they pay some attention to the marvelous educational developments of modern times; but they lay much more emphasis on subjects of far inferior interest. But education should be made the subject of special historical study as much as religion, art, or politics. Were it as thoroughly investigated as the Polytechnic School of Munich investigates engineering (maintaining forty-five distinct courses of lectures in that science), the history of education alone would tax the resources of the most learned and laborious professor. It is not contended that the chair of pedagogy can at present cultivate this field as carefully as this allusion may imply; but certainly here are topics of the greatest interest and importance, that demand admission to the university list on an equal footing with other subjects of historical investigation. So long as the history of education is a means of education, so long will it continue a proper university study.

Thus far the argument has been theoretical, resting on the speculative need of investigating the science, art, and history of teaching, and on their educational value. But the practical phases of the subject must also be presented.

1. Even if the work done by the pedagogical chair should pay no immediate attention to the preparation of teachers, it could not fail to be of much practical value. The scientific study and teaching of a science and an art, in their purely theoretical aspects, always promote the practice of the art; and the presence in every university in the land of a pedagogical professor, thoroughly devoted to his chair, could not fail to quicken interest in the subject and to promote the teaching art.

2. While it is a serious error to hold the university to be merely a place of instruction, and to overlook research—an error that is only too common in the United States—instruction is still one of its grand functions. It is engaged in teaching the highest branches of knowledge. Its professors hold their chairs by reason of their professional ability, as well as by reason of their learning. Where, then, may the science, the history, and the art of teaching be so properly taught as where the art flourishes in a high form?

3. The conditions of pedagogical study existing in the university, taken all together, are the best that exist anywhere. First, the university offers the student a varied curriculum from which to choose collateral studies. Secondly, it illustrates teaching in all the branches of liberal, and in many branches of technical, study. Thirdly, the library, which furnishes an extensive apparatus for general as well as special study, is an invaluable facility. Fourthly, the university is the home of liberal studies; its traditions and associations are conducive to cultivation, and the student in residence finds himself in the midst of a learned and cultivated society.

This point is deserving of a more elaborate statement. It is well known that special schools tend at once to depth and narrowness; intension is secured at the expense of extension. This is necessary to a degree; but if the process is carried too far, mischievous results follow. Hence the advantage of uniting the professional school with the school of liberal studies—an advantage greater now than ever before, because scholars, men of science, and teachers are pushing specialization to its extreme limits. We should not be surprised, therefore, to find writers who have touched the topic, laying much stress on the advantage to the student of receiving his pedagogical instruc-

tion in an academical institution. Professor Laurie insists that the teachers of the secondary schools of Scotland need professional preparation as well as university training. "Where shall they get this?" he asks. "They might be required to combine attendance at a training college with attendance at the university for a degree; but this, though it might serve as a provisional arrangement, would not secure the end we seek. And why should not this arrangement secure the end we seek? For this reason, and for no other, that a specialist training college does not answer the same purpose as a university. The broader culture, the purer air, the higher aims of the latter, give to it an educational influence which specialist colleges can never exercise."¹

Whether academical teaching should be furnished in a normal school, is a question often discussed. That question does not come within the range of this paper; but the observation may be made that such instruction must be defended theoretically, if at all, on the ground of its liberalizing and strengthening tendencies.

4. It is a function of the university to furnish society with teachers. Research, teaching, and the preparation of teachers are the three great duties that it owes society. The preparation of teachers for primary and grammar schools, and possibly for the lower classes of high schools, might be left to normal and training schools; but high schools and other secondary schools must receive their character from teachers of a higher grade of scholarship. It is a favorite conceit of some public-school men, as well as many citizens, that the public schools are fully adequate to create their own teachers, unless it be in some of the more special lines of high-school study and instruction; even the superintendents, they hold,

¹*The Training of Teachers*, pp. 10, 11.

should "come up from the ranks;" but no man who understands the tendencies and effects of specialization, particularly the results of breeding in-and-in, will for a moment favor such a narrow policy. The public schools have done an invaluable work in furnishing teachers to society; but it is a weighty fact that no schools more need to be kept in vital relation with the schools of higher instruction.

5. The chair of pedagogy and the teaching profession need the strength and dignity that university recognition will give them. Such recognition will be the strongest testimony that the university can bear to the public of the estimate in which it holds the great art that it practices. In that way, too, it will most strongly impress its students with the estimate in which it holds the teacher's calling. When our aspiring young men and women see accomplished professors of the science, art, and history of teaching in the universities and colleges of the land, vying with the professors of philosophy, ethics, jurisprudence, political economy, and history in the exposition of their favorite subjects, they will form a higher conception of the teacher's work. This argument also has been urged with much force by writers on education. Professor Laurie, for example, says that the teaching profession of Scotland, almost with one voice, hailed the action of the Trustees of the Bell Fund when they established the Bell chairs at St. Andrews and Edinburgh. The feeling was that they had "conferred honor on a department of work that Dr. Bell delighted to honor. They have unquestionably done very much to promote education in Scotland, not only by raising the work of the schoolmaster in public estimation, but also by attracting public attention to education as being not merely a question of machinery for the institution of schools (essential though

this undoubtedly is), but a question of principles and methods—in brief, of philosophy.” He says, further, that the institution of the Edinburgh chair increased the importance of the teaching body, gave it academical standing, and made it possible for the first time to institute in the universities a faculty of education, like the faculties of law, medicine, and theology.¹

The argument can be strengthened by historical analogies. Professional instruction has long been given in the highest seminaries of learning. The learned professions have loved to nestle under the wings of the universities. The faculties of theology, law, and medicine have so long been constituent parts of the university that some may suppose that such has always been the case. But this is not the fact: the faculty of arts is the original faculty on which the university was founded, and around which the other faculties have grown up. One of our ablest American pedagogists—my honored predecessor at the University of Michigan, President W. H. Payne—says: “The main strength of the recognized professions is their organic connection with great seats of learning. Law, medicine, and theology,” he goes so far as to say, “had never been professions except on the condition of university recognition and support; nor could their professional character be sustained if this support were withdrawn.”²

The argument from recognition derives additional strength from the history of education. No other noble art have men treated with such general contempt. No other noble calling, at least in its lower walks, has been abandoned to such unworthy agents. According to Socrates, the Athenians took more care in selecting train-

¹ *The Training of Teachers*, pp. 6, 7, 17.

² *Contributions to the Science of Education*, p. 269.

ers for their horses than for their children; and Plutarch says that in his day, as men assigned their slaves to different employment according to their fitness, if they found any slave who was a drunkard, or a glutton, or unfit for any other business, they made him a pedagogue. Luther says he was whipped fifteen times on one day at school because he could not recite what he had not been taught. Compayré says as late as 1837 the French schoolmasters practiced all the trades; they were day laborers, shoemakers, ushers, beadles, and inn-keepers; they were poorly paid and enjoyed no social consideration; they were on the same footing as mendicants, and were often infirm, crippled, and unfit for any kind of work. Carleton has described the hedge school of Ireland in one of his graphic tales. Whether men have despised the training of children, and so committed it to such unworthy agents, or whether they have allowed it to fall into such hands and then despised it, is immaterial; but certainly from classic days to recent times the elementary school and its teachers have been made the subjects of keenest ridicule. What a figure the schoolmaster cuts in literature, from the days of the flogging Orbilius to the days of Dominie Sampson and Squeers! Commonly cruel and tyrannical, generally ignorant, always uncouth and awkward, and, if occasionally learned, also pedantic, the schoolmaster of literature is not a character in whom one can feel a professional pride. No doubt the satirists have made the most of their opportunity; no doubt there have been many admirable teachers; but, on the whole, the repute of no other workman has fallen so far below his work as the repute of the teacher. We live in better times. At present society is demanding that teachers shall have higher literary qualifications, and that they shall be superior persons; both of them most hopeful

signs. The university will materially strengthen these tendencies by maintaining the chair of education.

6. There is a still broader ground on which the question can be urged. Teachers are not the only persons who are interested in educational problems. Those problems concern, and should interest, all intelligent men and women. If the graduates from our higher institutions of learning could take two courses of lectures, one in the theory and practice and one in the history of education, before receiving their diplomas, they would find the knowledge and training thus received of very great advantage to them. Mr. Spencer's vigorous argument on this point will not soon be forgotten. "The subject which involves all other subjects, and therefore the subject in which the education of every one should terminate, is the theory and practice of teaching."

7. The university itself needs the chair of education to give it completeness and symmetry. So long as its right—its duty even—to investigate and teach the arts and sciences generally is not only admitted but asserted, it is strange indeed that anyone should question its right and duty to investigate and teach its own processes and the principles underlying them. The fact is, that in this respect the American university has been an empiricist. Heretofore it might say in self-defense that education was largely empirical; but that argument has now lost most of its force. Nor can a university in any other way so effectually defend education against that charge as by creating a professorship to cultivate it as a science.

But this is not all: the university needs the chair for practical reasons, separate and apart from the preparation of teachers. Its occupant, if a man of real force and attainments, could not fail to stimulate pedagogical thought among both professors and students, thus creating a

mental habit and an atmosphere that would be useful in many ways. Somebody in the faculty should stand for educational science. Particular stress may be laid on the new university conditions growing out of elective studies, such as throwing upon students the difficult and important subject of educational values. Then the study of education may be strongly recommended to advanced students on disciplinary and culture grounds. When they near the end of the curriculum they cannot, indeed, correct the mistakes that they have made; but they can coördinate their knowledge and their ideas, giving to the sum-total of their attainments something of the form and consistency of system. And this is in the highest degree desirable. It solidifies, and so preserves, what has been learned, and influences further acquirement. It is my firm conviction that university seniors generally could spend a semester in such an intellectual clearing-house with the greatest advantage. Nor is there any place where this work can be so well done as in the classroom of a competent professor of pedagogy. On this ground alone the chair of pedagogy in the higher institutions can be successfully advocated.

The history of the universities throws much light on our subject, and I shall close by stating some of the more important facts of that history.¹

In the older universities of the Parisian model, instruction was not confided to a special body of professors, but the university was taught and governed by the graduates-at-large. Professor, master and doctor were synonymous terms. Every graduate had the equal right to teach pub-

¹ See Sir William Hamilton's articles on "English Universities" and "University Reform," first published in the *Edinburgh Review*, and now found in his *Discussions on Philosophy*, etc.

licly in the university the subjects belonging to his faculty and to the rank of his degree, and was even required by the terms of his degree to do so. The bachelor was bound to read under a master or doctor of his faculty a course of lectures; and the master or doctor was obliged immediately to commence (*incepere*), and to continue for a certain period to teach (*regere*), some of the subjects belonging to his faculty. Hence "commencement," the time when the perfect graduate commenced to teach, and the so-called "necessary regency." However, the universities did not enforce the obligation of public teaching so long as there was a competent number of voluntary teachers or *regents* to do the work; besides, the schools belonging to the several faculties were frequently inadequate to accommodate the young *inceptors*. And so it came to pass that the period of necessary regency was successively shortened, and finally dispensations from actual teaching were commonly allowed. In these circumstances originated the distinction of *regent* and *non-regent*; to the first of whom, progressively, full privileges of legislation and government came to be confined. This distinction was most rigidly marked in the faculty of the arts. "In the other faculties," says Sir William Hamilton, "both Paris and Oxford, all doctors succeeded in usurping the style and privileges of *regent*, though not actually engaged in teaching; and in Oxford the same was allowed to masters of the faculty of arts during the statutory period of their necessary regency, even when availing themselves of a dispensation from the performance of its duties, and extended to the heads of houses and to college deans." He says further that the teaching function was accorded the bachelor on two grounds: "Partly as an exercise towards the higher honor, and useful to himself; partly as a performance

due for the degree obtained, and of an advantage to others." In Germany the course of academical history was somewhat different. There the thesis that the candidate for the Doctor's degree is now required to "defend," as well as to read, is a survival of the ancient custom.

It is not difficult to discover the causes that made bachelors as well as masters of arts university teachers, and that afterwards ousted them from their privileges. The multitude of pupils that flocked to the Medieval universities—20,000 to Bologna and 30,000 to Oxford—many of whom were very young and immature, called for a large number of teachers. The university felt its obligations to the public. Moreover, the conviction that teaching is a most important means of learning had great influence. The establishment of secondary schools, which drew away the younger pupils from the universities; the growth of science in both breadth and depth; the development of specialization in teaching and in research, and the ambition of the Dons—these are the main causes that banished from the university the somewhat miscellaneous body of teachers of the earlier times, and established a body of professional instructors. The change was not only natural but inevitable.

The causes that banished the body of graduates from the university as teachers will prevent their reappearance in that capacity. The university cannot again furnish society with teachers, or teachers with needed discipline, in the ancient manner. The forces that worked the great change are far stronger to prevent its being unworked. This is a revolution that will not go backward. What then? Shall the university forget its ancient function of furnishing society with teachers? Shall it pretend that when it has made scholars it has also made teachers, and thus ignore or deny the value of professional training? Shall

it confine itself to research and to teaching? Or shall it remember its ancient practice, and, recognizing all the new conditions, including the demand for the professional training of teachers, establish and maintain the Chair of Education until the time comes for it to give way to the Faculty of Education? This last is a question to which there can be but one final answer.

It will be seen that while the university and college are mentioned together in the caption of this paper, the university alone has been mentioned in the argument. Hence the observation that, as the college raises its standard and approaches the level of university work, the same reasons will apply to it as to the university.

VIII.

THE CULTURE VALUE OF THE HISTORY OF EDUCATION.¹

HE appearance on the morning's programme of the subjects following my own will cause no surprise. That the history of education contains lessons of great practical value for the educational statesman, for the school administrator, and for the teacher, are propositions by no means novel, even if their importance is not fully appreciated. That this history also has great culture value may not be a novel proposition, but it is certainly much less familiar than the others, and is much less appreciated. This is the proposition that I am to bring into the foreground.

I must first explain that by the culture value of the subject I mean its total value separate and apart from guidance or practice. Everything that the history of education does for the mind as such, whether training its powers, storing it with information, or planting it with fruitful ideas, is included in the topic. In this discussion, however, it will not be necessary, or advantageous, to separate the total culture product into these several parts.

Possibly it is commonly supposed that the history of education consists of dry bits of information relating to studies, methods of school organization, teaching and discipline, school legislation, and school appliances, to-

¹A paper read before the National Educational Association at Nashville, Tenn., July, 1889.

gether with personal notices of some quite peculiar and uninteresting men called schoolmasters and educational reformers. It does indeed embrace all these subjects, which are of such great practical importance; however, if this were all we could not make a very large culture claim for the study. But this is far from being all; it is, in fact, but husk and rind, so far as culture is concerned. It would not be easy to name a division of the history of philosophy, or of the philosophy of history, that brings before the mind a richer store of facts or a more interesting group of problems.

First, educational systems in the legal sense are an important department of law, and an interesting branch of institutional history. Education is recognized in every one of our State constitutions, in some of them at much length; while our State school laws are among the most characteristic parts of American legislation. It is an obvious remark, that these laws reflect the character and temper of our people, and partake of the nature of our institutions as a whole. It may be equally obvious that these laws, so far from being based on certain *a priori* principles, conform throughout to our local political institutions. For example, there are in the United States two radically different systems of local government. In New England the unit of government is the town; in the South, the county. In the one section, the county is used for judicial purposes only; in the other, the town is nothing but the jurisdiction of a justice of the peace and an election district. A third system has sprung up from the combination of these two. The compromise system of the old Middle States, and of the West, makes less of the town and more of the county than New England, and less of the county and more of the town than the Southern

States. Our State school systems, corresponding to these large institutional facts, are also divisible into three groups. Until the recent Vermont legislation in relation to the county superintendency, I am not aware that the word "county" was found in the school law of a single New England State. At the South, again, school officers and school machinery belong mainly to the county. And finally, the compromise-system States use both the town and the county for educational purposes, just as they do for the other objects of local government.

Examples of the correspondence between school systems and their social and political environments are plentifully furnished by the states of Europe. In France and Germany, the administration of the schools and of education is highly centralized, like every other department of public affairs; while that large piece of patch-work called the Elementary Education Acts well illustrates the slow process of evolution by which the institutions of England have been produced, the heterogeneous elements of which they are composed, and the extreme conservatism of the English mind.

Education therefore is deserving of study as a part of the institutions of nations. The education of youth is certainly a much more important element of civilization than the punishment of criminals, but educational institutions have been less studied than penal institutions by others than professional educators.

In the second place, educational systems, considered as mental and moral disciplines, are developments of ideas; they are born of philosophies, religions, civilizations. This can be shown adequately for the occasion by an outline map of the territory that the history of education covers. Frequently the division lines will overlap, but

my object is to give a general view of the field and not a close logical analysis.

1. The inquiry how education has been influenced by particular civilizations would include the effects of national ideals, as those of Athens, Sparta, and Rome in ancient times, and Prussia and America in modern times. It would embrace also the educational results of the caste system of Hindustan, of democracy in the Greecian republics, of absolute monarchy in France under the *ancien régime*, of constitutionalism in England, and of republicanism in the United States. Nor would the inquiry end with the influence of the several factors in the particular countries where they existed; many of their most interesting results would be found in remote lands and in distant times. China did not make any contribution to current Western educational history until, a few years ago, we began to study her civil-service and examination systems; but Greece, from her character and geographical position, has profoundly influenced the education of every Western country since the days that she sent her colonies to Italy, Gaul, and Spain.

2. The educational effects of schools of thought come next. Exclusive of theology, thought has moved in two main channels. The first Greek thinkers occupied themselves with physical problems. They sought to understand and to explain nature; but their explanations, as was natural, are now thought rather curious than valuable. Socrates at first studied the same subjects; but, failing to reach results that satisfied him, and becoming convinced that the gods had withheld the causes of material things from the knowledge of men, he applied himself to human problems, and so became the founder of philosophy. His motto was "Know thyself;" and although the scientific treatises of Aristotle and the phys-

ical discoveries of the Alexandrian philosophers were promising anticipations of modern science, thought continued to flow mainly in the humanistic channel for two thousand years. In the large sense, Socrates was the first and the greatest of humanists. In the seventeenth century we come upon the main stream of the second great intellectual movement. In English-speaking countries, and in all countries where the experimental philosophy has made a deep impression, the name of Lord Bacon has been, and still is, more closely identified with this movement than that of any other thinker. In late years there has been a tendency to challenge Bacon's claims, but we must in fairness acknowledge the force and justness of Professor Fowler's words, "He called men, as with the voice of a herald, to lay themselves alongside of Nature, to study her ways, and imitate her processes. To use his own homely simile, he rang the bell which called the other wits together. Other men indeed had said much the same thing in whispers, or in learned books written for a circle of select readers; but Bacon cried it from the housetops, and invited all men to come in freely and partake of the feast. In one word, he popularized the study of nature. He insisted, both by example and precept, on the influence of experiment as well as observation. Nature, like a witness, when put to the torture, would reveal her secrets."¹

Thus the name of Bacon stands for science as the name of Socrates stands for philosophy. It is impossible to name subjects more unlike in matter than these two subjects. They present also strong differences of process and method in both investigation and exposition. The historian of education is not concerned with these great intellectual movements as such, or with humanist or scientist; but he is intimately concerned to know and to

¹ Bacon, p. 197.

explain how they have affected the study of mind and shaped theories of human nature; how they have moulded educational ideas and furnished the materials of study; how they have influenced the scale of educational values, and determined methods of teaching and school government. Who shall estimate the pedagogical consequences of such Baconian utterances as these: "Man is the servant and the interpreter of nature;" "We can only conquer nature by first obeying her;" and, "The kingdom of man, which was founded on the sciences, cannot be entered otherwise than the kingdom of God—that is, in the spirit of a little child?"

A still more particular inquiry as to philosophy is this: How has education been affected by its various systems, as the Platonic and the Aristotelian, Sensationalism and Idealism?

3. How has education been influenced, as respects its ideals, its subject matter, its methods, by the religions and churches of the world, and by particular movements and organizations within them? To be more specific, what has been the influence of historical Christianity, and of such currents within its wide stream as asceticism, scholasticism, mysticism, Protestantism, and the Catholic revival? M. de Laveleye, the distinguished Belgian publicist and economist, once said: "The Reformed religion rests on a book—the Bible." "Catholic worship, on the contrary, rests upon sacraments and certain practices, such as confessions, masses, sermons." What, if any, is the educational significance of these two facts?

No man competent to deal with this problem is likely to question that, as a whole, Christianity far transcends any other force or movement that has acted upon education. Consider for one moment the tremendous momentum that the enthusiasm of humanity has given to educational

effort. "A new commandment I give unto you, that you love one another; as I have loved you, that ye also love one another." Undoubtedly, men who approached education on the secular side have done educational work of very great value; but the men who have burned with educational zeal—the evangelists of new fields, the heroes of new conquests, the martyrs of the cause—have been Christian men, filled with the spirit of Him who was moved with compassion on the multitude, when He saw that they fainted and were scattered abroad as sheep having no shepherd. Nor, as the centuries pass away, does this flame burn less pure or bright. It warmed the heart of Pestalozzi as well as of St. Boniface. All in all, the educational influence of John Amos Comenius has been greater than that of any other man of recent times. And Comenius was a Moravian bishop, impelled in all his undertakings by the same spirit that sent some of his brethren as missionaries to the snows of Greenland and others to the forests of Ohio. "As Comenius increased in years," says Professor Laurie, "the religious element in his educational theories assumed more and more prominence. But he never lost sight of his leading principles. The object of all education was to train children to be sons of God, but the way to do this was through knowledge, and knowledge was through method."¹

4. Next may be mentioned the educational consequences flowing from intellectual eras or epochs; as the reaction of Greece upon Rome, the Renaissance, the modern scientific era, the ascendancy of the French mind in the seventeenth and eighteenth centuries, and the wonderful growth of German influence since the downfall of Napoleon. There are conjunctions in the world's history where we find real new educations; such as the intro-

¹ *John Amos Comenius*: p. 213.

duction of the Greek learning into Italy by the Romans, the revival of ancient letters, and the expansion of modern science.

5. The rationalistic movement, which Mr. Lecky well characterizes as, "not any class of definite doctrines or criticisms, but rather a certain cast of thought, or bias of reasoning," began with the revival of letters, and has continued its resistless sweep until it has sapped the basis of authority, greatly weakened faith, swept vast masses of dogma into the limbo of things forgotten, set up new standards or modified old ones in almost every department of life, and restored to civilization the old Greek spirit of inquiry. How this yeast has worked since the time when the disciples of Abelard prayed their master to give them "some philosophical arguments, such as were fit to satisfy their minds; begged that he would instruct them, not merely to repeat what he taught them, but to understand!" How great the distance that separates us from the day when Scheiner, the monk, was told by his superior that he could not have seen spots on the sun, since Plato and Aristotle mentioned nothing of the kind in their writings!

6. Then there is modern democracy, or the universal spirit, that, repudiating the old theological theory of government, and basing the state on the dogma of contract, has profoundly modified every department of life.

7. The secularizing tendency, which, as well as democracy, is closely connected with the rationalistic movement, has changed educational ideals; broken up old courses of study and made new ones, and, to a great extent, compelled the clergy to pass the educational torch to laic hands.

8. Last of all may be mentioned material progress, perhaps the greatest fact in a time of great facts. The

opening up to civilization of the vast regions of the earth unknown before the Age of Maritime Discovery, or unoccupied, together with the power over Nature that discovery and invention have conferred upon man, has piled Ossa on Pelion until we no longer even guess what the surprises of the future will be. However, we shall hardly dissent from the opinion of Mr. Spencer: "Throughout the civilized world, especially in England, and above all in America, social activity is almost wholly expended in material development. To subjugate Nature, and bring the powers of production and distribution to their highest perfection, is the task of our age; and probably of many future ages."¹ It is true that material progress, like many other parts of modern civilization, is largely a product of modern education; but it has reacted upon its cause, changing ideals, substituting new subject-matter for old, and modifying school methods. "It is impossible," says Mr. Lecky, "to lay down a railway without creating an intellectual influence. It is probable that Watt and Stephenson will eventually modify the opinions of mankind almost as profoundly as Luther or Voltaire."² While the transforming educational power of material progress has already been very great, it is certain to be still greater. Men are not wanting who tell us that an education based on books, no matter how it may have answered the demands of civilization hitherto, is ill-suited to the wants of an industrial and commercial age, and that we must create a new education based on things and manual processes. This is an extreme claim; but we readily see how it has originated, and why it is pressed with such persistence.

¹ *Essay on The Morals of Trade.*

² *Rationalism in Europe*, pp. 1, 8.

But we must look at our subject under a third aspect. The school is a product of civilization, and, historically, a late one, later than the family, state, and church. But it has reacted with marked power and effect upon civilization, modifying its forms, changing its spirit, reconstructing its ideals, and altering its character. Moreover, this reflex influence is constantly growing in strength. More and more the schoolmaster is getting abroad. Stronger and stronger becomes the thread of education in the strand of civilized life. Formal argument is hardly called for to prove these propositions, but one or two historical illustrations will not be out of place.

Says Mr. John Fiske: "The Puritan theory of life lay at the bottom of the whole system of popular education in New England. According to that theory, it was absolutely essential that every one should be taught from early childhood how to read and understand the Bible. So much instruction as this was assumed to be a sacred duty which the community owed to every child born within its jurisdiction." The results of the system of schools that sprang from this root idea are before the world. Mr. Fiske finds the same theory of life acting in Scotland; and he goes so far as to say: "And one need not fear contradiction in saying that no other people in modern times, in proportion to their numbers, have achieved so much in all departments of human activity as the people of Scotland have achieved. It would be superfluous to mention the preëminence of Scotland in the industrial arts since the days of James Watt, or to recount the glorious names in philosophy, in history, in poetry and romance, and in every department of science, which, since the middle of the eighteenth century, have made the country of Burns and Scott, of Hume and Adam Smith, of Black and Hunter and Hutton and Lyell, illustrious

for all future time."¹ Back of, and causing, all these splendid developments were the parish and burg schools that date from John Knox. Renan may have overstated the truth when he said the German Universities conquered at Sedan; but men recognize that education played a most important part in the tremendous war which in 1870-1871 considerably changed the map of Europe, and profoundly affected the adjustment of its political and military forces. On the opening of the Paris Exposition two months ago, keen observers began at once to study the products there exhibited with reference to their educational bearings. Moreover, they have promptly told us that they find clear proof that, in some lines, America is falling into the rear. Thus, every day the impression deepens that education and schools are essential elements of national power and progress.

Then there are certain divisions of knowledge a fair acquaintance with which is deemed essential to a well-educated man. Reference is not now made to the mere technical subjects that are taught in schools, as languages, mathematics, and sciences; but to those more general branches of knowledge that constitute what we commonly call "general information," and sometimes "fact-lore." Mention may be made of military history, politics, material progress, religion under its doctrinal and institutional forms, art, and literature. Now it cannot be denied, either that education is a subject of at least equal importance and dignity with these, or that it is much less understood. Educational knowledge has never taken rank with the other large divisions of knowledge; and, if the paradox may be allowed, education is the one great subject about which educated men generally are most igno-

¹ *The Beginnings of New England*, pp. 151, 152.

rant. This fact is a part of that undervaluation of education which is so patent in the history of civilization. Two series of facts will set the general proposition in a clear light.

Intelligent men are almost universally ill-informed concerning contemporary educational history. Men who can give you a particular account of the progress of political events in France since 1870, can give you no account whatever of the almost equally remarkable series of educational events. Americans understand German schools and education better than those of any other foreign country; and yet with the exception of a small number of cultured men this understanding is extremely vague and general. Men in numbers can explain, with much fullness and accuracy, that wonderful complex of precedents, documents, and institutions which make up the English constitution, who know nothing of England in an educational aspect beyond the bare fact that Oxford and Cambridge are its great Universities.

Nor do we find a happier state of things when we change from contemporary to historical events. Here, however, it must be confessed that the materials of information are not easy of access. The man who has never read the common books of history with the point in mind, can poorly appreciate their barrenness of such materials. One dependent solely upon these sources of information would hardly get the idea that there were schools and teachers in antiquity, or that they have been of much consequence in modern times. He will search the copious indexes of Grote's, Thirlwall's, and Curtius' histories of Greece in vain for the words "teacher," "school," "study," and "education." Merivale and Mommsen do better. Some very interesting views of Roman education are found in their works, but by no means the full views

that the student of educational history desires. Macaulay said the historian of England should be a combination of Henry Hallam and Sir Walter Scott. He introduced into his History—for example, into the celebrated third chapter—much material that writers before him had despised and neglected, thus imitating the artist mentioned by himself who made the most beautiful window in the Cathedral of Lincoln out of bits of glass that his fellow-workmen had cast aside. And yet Macaulay did nothing for the history of education beyond some accounts of the universities, and a half-page devoted to female education at the Restoration. Mr. J. R. Green, as he says in his preface, strives to keep his book from sinking into a drum-and-trumpet history. He gives more space to Chaucer than to Crecy, to Caxton's press than to the Yorkist and Lancastrian strifes, to the rise of Methodism than to the Young Pretender; and still, except some interesting views of the universities and the sentence, "The Sunday schools established by Mr. Raikes, of Gloucester, at the close of the [eighteenth] century, were the beginnings of popular education," I recall nothing in his "Short History," or in its later expansion, directly touching the education of the English people. Mr. Lecky does a little better; in his sixth volume he gives between two and three pages to popular education—which is just twice the amount of space that he gives to the introduction of the umbrella into England. I know of no history of England that gives any account whatever of the ancient grammar schools, or of the great public schools, which are such important factors in the civilization of the country. Even when full allowance has been made for the former feeble state of education, and particularly public education, such remissness as this is inexcusable. Apparently, war and politics are still themes so attractive as to draw

the attention of historians from such a splendid theme as national education.

Finally, to guard against possible misapprehension a few words of caution. It may be said that my programme is too ambitious; that interesting and important as are the facts and problems presented, they belong to the history of civilization or philosophy rather than education; that they lie above the level of normal-school, or even of college and university teaching; and that they have more interest and value for the philosopher and the historian of philosophy than for the practical teacher and school officer. This view is not without truth. I have sought to assign to Education her proper place in the family of philosophical studies. No doubt my programme is not at present fully attainable in even our best equipped universities. At the same time, this programme should be kept in view as an ideal. No doubt the professor of the history of education must not allow his instruction to evaporate in philosophical speculations; he must remember our practical aims, and especially our practical needs; he must keep the teacher's schoolroom and the superintendent's office constantly in view. But if he is wise, he will at all times push his own studies along the higher levels of the subject; he will present his facts in the light of reason; he will be philosophical as well as pragmatical, and will not fail to connect educational facts and problems with the important philosophical, social, scientific, and religious facts and problems with which they are so closely bound up. If at all fit to occupy his chair, the professor will understand that there are two classes of elements in the practice of education—the temporary and the permanent, the necessary and the contingent; by analysis he will separate these classes of elements one from the other; and he will so establish his pupils in this distinction

that they will not be apt to follow noisy educational prophets who, losing sight of it, either fall into utter charlatany, or so exaggerate some elements of education as to make the whole product monstrous. The teacher of the history of education is the man to establish in the minds of those fitting to teach a proper educational perspective.

IX.

THE TEACHER'S PREPARATION.¹

O person can successfully teach any subject who has not clear and correct ideas of the ends that he should seek to gain. As this remark is a particular application of the truism that no man can do a thing well without knowing what he wants to do, insistence upon it may be thought superfluous. Such, however, is not the fact, and I shall give it the emphasis of two or three paragraphs.

A teacher may undoubtedly teach well the instrumental studies in their earlier stages without grasping their whole significance. He deals largely with mechanical processes, physical and mental. It is indeed desirable, since the mechanical and rational elements of education finally blend in perfect unity, that the primary teacher should grasp the ultimate end of these educational arts, but we cannot insist upon it as absolutely essential. He will not, however, be successful unless he sees distinctly the immediate objects to which the work leads. What reading *is*, and *why* it is taught, are questions that he must be able to answer. And so of writing, number, and drawing. Much more as the mechanical stages of these arts are left behind, must the teacher consciously grasp their higher uses.

With some qualification these remarks may be repeated with respect to the non-instrumental studies. It is not

¹ An address delivered before the Normal Department of the National Educational Association, Toronto, Canada, July, 1891.

strictly necessary that the teacher who deals mainly with the facts of geography, history, literature, or science, rather than with their interpretation, should fully perceive their higher elements and objects. Even here, however, such insight is more desirable than at the corresponding stage of reading and writing, for the work is less mechanical and more rational. In fact, all that the phrases "mechanical stage" and "rational stage of education" mean is, that in the first we throw the emphasis upon the empirical elements, while in the second we throw it upon the philosophical elements; first in respect to particular studies, and then in respect to education as a whole. Furthermore, while studies differ widely in the ratio existing between facts and principles, and the same study in the ratio of these elements at different stages, there is no study, and no stage of any study, that is wholly lacking in either. Still more, as the teaching of the non-instrumental studies recedes from the matter-of-fact stage, as now defined, the teacher must fully discern the final reasons of his work and be guided by them. He must feel the force of the philosopher's beatitude, "Happy is he who knows the causes of things."

What has now been said is very well summed up in the words of Dr. Arnold: "It is clear that in whatever it is our duty to act, those matters also it is our duty to study."

I. The Fundamental Facts of Education.—The first of these is the mind itself. The mind is capable of activity, of self-activity; through its activity it grows, increases, enlarges; while it is one, and has no parts, it is capable of acting in different spheres, and through these activities its powers or faculties are developed. This enlargement or increase of the mind is what we mean by education when

we properly understand ourselves. Once more, the mind cannot act, and so cannot enlarge or become educated, if it is merely left to itself. Hence the second fundamental fact of education is the world or knowledge. Nature first sets the mind in motion, and so incites its growth or education; afterwards the same results are produced by the mind's own states and affections. However, until the relation of contact between the mind and the world or knowledge is established, there is no mental activity, and so of course no education; but the moment such contact is established activity begins and education takes its rise. Accordingly, the third fundamental fact is the mind and the world, or knowledge, in relation.

These fundamental facts the teacher must firmly and clearly grasp, because they bound his province as a teacher.

II. *The Teacher's Function.*—In the strict sense of the word, the teacher's function, as an instructor, is determined by the relation of knowledge to the mind. How to use knowledge, or rather how to cause the pupil to use knowledge, in such a way as to promote proper mental growth, or education, is the central question of the teacher's art. As a former of minds, he has no duty to perform that is not included in this generalization. That the teacher may successfully prosecute his art, he must know:—

1. The activities of the mind, their nature and relations, and their respective values as determined by the facts of life, individual and social; or, in other words, he must have an educational ideal.

2. The varieties of knowledge (or, as Bacon calls them, the "knowledges") and their power to stimulate and form the mind, in respect both to quantity and quality;

or he must have worked out, partially at least, the problem of educational values.¹ The person who has this knowledge, conjoined with skill in bringing knowledge and the mind into vital relation, can successfully discharge the function of a teacher; and only such person can do so.

III. *The Two Aspects of Knowledge*.—The foregoing analysis makes apparent the fact that knowledge, or studies, must be considered from two standpoints, the academical and the pedagogical.

¹ Perhaps a pregnant passage in Lord Bacon's essay "Of Studies" has had more to do with suggesting the term "educational values" than any other in literature. "Histories make men wise; poets witty; the mathematicks subtil; Naturall Philosophy deepe; Morall Grave; Logick and Rhetorick Able to Contend. Abeunt studia in moras. Nay, ther is no Stond or Impediment in the Wit, but may be wrought out by Fit Studies. Like as Diseases of the body may have Appropriate Exercises. Bowling is good for the Stone and Reines; Shooting for the Lungs and Breast; Gentle Walking for the Stomacke; Riding for the Head; And the like. So if a Man's Wit be Wandering, let him Study the Mathematicks; for in demonstrations, if his Wit be called away never so little, he must begin again. If his Wit be not apt to distinguish or find differences let him Study the Schoolmen; for they are Cymini sectores. If he be not apt to beat over matters; and to call up one Thing, to Prove and Illustrate another, let him Study the Lawyers' Cases. So every Defect of the Minde may have a Speciall Receiptt."

Dr. James Ward remarks that a threefold analogy seems to underlie the phrase "educational values"; studies may be regarded as exercise, as medicine, or as food. The two first he finds combined in the above passage from Bacon, which he quotes, but he thinks that the third analogy more directly suggests the word "value." "Physiological text-books," he says, "have familiarized us with tables exhibiting the respective values of fat and lean, sugar, starch, etc., for sustenance of brain or muscle, for maintaining warmth, preventing fatigue, and so on." The threefold analogy suggests "mental dietetics, mental gymnastics, and mental therapeutics."

The academical point of view is the one occupied by the pupil in the school and the scholar in the world. Such person is profited by knowledge in two ways; his mind is formed and informed by it, and in this way he is made ready for the work of life. The general scholar or the common man has no special reason for studying knowledge with reference to its forming and informing powers, or to inquire carefully into the ways in which it shall be applied to educational uses.

The professional or pedagogical point of view is the one occupied by the teacher or other person interested in the philosophy of education. As already implied, it includes in its inventory the following elements: The activities of the mind; the relations of different kinds of knowledge to these activities; the discovery or invention of methods whereby mind and knowledge may be brought into due relation; that is, methods of teaching. These questions bring before us the whole *rationale* of forming and informing the mind, in so far as the teacher's art is concerned with it; in other words, the science and the art of teaching.

IV. *The Distribution of Emphasis.*—Both of these ways of looking at knowledge may be emphasized, or either one may be emphasized to the partial exclusion of the other. The placing of disproportionate emphasis on the one or the other is well illustrated by the divergent tendencies of college and university teachers, on the one hand, and of common-school and normal teachers, on the other.

Active college men cultivate knowledge and learning; they belong to the various associations and societies looking to those objects; but as a class they take little interest in the science and the art of teaching. They give a

minimum of attention to the reflective or scientific side of the profession that they follow. They are not much interested in teachers' associations and meetings, and often look upon them with ill-concealed contempt. They are prone to deny that there is a science of teaching, and sometimes say that education has no history worth studying. Some of them look askance upon the new chairs of pedagogics in the universities and colleges, and a few oppose to them an active resistance. "What literature is there for him to teach?" was once asked in a prominent university when it was proposed to add to the faculty a professor of the science and the art of teaching. That college teaching suffers severely in consequence of this neglect of the teaching art, does not admit of question.

Common-school and normal teachers lay more stress than college professors on the professional factors of education. Why, I need not inquire; the fact is unmistakable. They make up a large majority of the great army that attend meetings like the present one. They carry on most of the discussion relating to teaching. Indeed, if our educational associations should lose the support of these teachers there are few of them that would not perish at once. But, on the other hand, these teachers are much less prominent and active than college professors in the field of learning and investigation. One reason of this is, that if such a teacher begins to attract attention in these fields he is pretty apt to be called into college or university work; but I suspect that few of them are identified with the learned or scientific societies of the country. Common-school teachers are relatively over-absorbed in the technics of their work, which suffers seriously in consequence.

Now that the teacher should be deeply interested in both the academical and professional aspects of teaching, or

that both sides of his preparation need to be suitably emphasized, becomes demonstrably certain when we consider the relations existing between the two. The following points may be noted:—

1. Academical preparation is not sufficient. Knowledge cannot be mechanically deposited by one person in the mind of another, or mental power be similarly transferred. The mind has its own laws of growth, like a plant or an animal, which must be regarded. Horace Mann once said that children love knowledge as naturally as they love honey; and to the objection that some do not appear to do so, he replied that neither would they like honey if it were poured into their ears. Hurling facts at children's heads, or piling up knowledge on the table, is not teaching. It is well known that great scholars are sometimes very poor teachers. They either have no native aptitude for teaching, or they have neglected the cultivation of their art. But it is important to observe that primary teaching is a more delicate art than college teaching. Young pupils have almost no power to organize knowledge, whereas advanced students can re-sort and rearrange masses of material that are cast before them. Feeding an infant is a more delicate operation than feeding a giant. Were the majority of primary teachers such bunglers as many college professors are, they would soon be relegated to other spheres of usefulness.

2. Academical preparation must precede professional. This arises from the nature of the case. The *rationale* of no subject can be taught before the subject itself is measurably understood. Neither special methods nor general methods can be taught successfully until the pupil has a good academic education. The *what* must come before the *how*. Hence the effort to superinduce a professional education for teaching upon an unorganized or ill-informed

mind must end in an ignominious failure. The rent in the old garment is made worse by sewing in a patch of new cloth.

At this point great mistakes have been made, and are still sometimes made. For example, Pestalozzi held that a teacher who had mastered the method could teach a branch of knowledge that he did not understand. To me this is the paradox of educational history, since the whole trend of Pestalozzi's thinking was away from mechanism and toward spirit and freedom; and I can explain it only by referring it to that enthusiasm for a favorite idea which sometimes runs into fanaticism. The great Reformer's own scholarship, it will be remembered, was slender, while he dealt almost wholly with young and immature minds. But Pestalozzi is not the only man who has made this mistake. The idea appears to prevail in some quarters even now that a person can be *fitted out* with a kit of tools that will enable him to teach, no matter whether he knows much or not.

Teaching is bringing knowledge into due relation with the mind. Something must be brought. In abstract knowledge we deal with forms of thought; but teaching is not a matter of form or thought-skins, of going through motions or following rubrics. Forms stand to thought in some such relation as grape-skins to grapes, and are no more nutritious. Teaching is spreading no Barmecide table. Then too much is often made of the experience argument. At least experience is often misunderstood. It is not mere number of days or years spent in the service. Not a few teachers have I known who were incapacitated for good teaching by their very "experience." Their minds had become circles closed to all new ideas and inspirations and glazed over with uniformity and self-complacency. If you start out on the wrong road, the

longer and faster you walk the farther you are from your destination.

But if either factor must be slighted, which one shall it be? Which is better, much scholarship and little method, or little scholarship and much method? The answer to this question cannot for a moment be held in doubt. Both theory and experience declare for scholarship. In fact, the enthusiasm of knowledge is a prime requisite of the best teaching. Few school spectacles are more painful than that of a poor teacher eking out slender learning with an excess of method. The good scholar without professional training will commonly stagger more or less at first, but, if he have the root of the matter in him, he will find his feet; while the teacher of an ill-organized mind and small equipment gives little promise of ever overcoming his limitations. The *what* will catch the *how* long before the *how* will overtake the *what*. And this is why all sound educators plead for the improvement of the academical equipment of the teachers of the country.

X.

HISTORY TEACHING IN SCHOOLS.¹

HE Report of the Conference on History, Civil Government, and Political Economy, made to the Committee of Ten, is a document of forty octavo pages, the foundation of which is composed of some thirty-five resolutions that were carefully elaborated by the distinguished scholars and teachers who composed the Conference, while the superstructure is built up by a careful exposition of these resolutions, and their enforcement by appropriate arguments, the whole constituting a solid and valuable body of pedagogical doctrine. Merely to summarize this Report and to comment on its salient features, would perhaps hardly meet the expectations of the hour. So I shall take up the subject *de novo*, making such references to the Report as will conduce to the stronger presentation of my own ideas. I shall begin with assigning to history its proper place in a full scheme of education.

That expansion or growth of the human mind which we call education, originates in the contact of the mind itself with facts or objects of knowledge. We are not here concerned with the speculative aspects of this subject; but we must emphasize the fact that all mental

¹ A paper read before the Department of Superintendence of the National Educational Association, at Cleveland, O., February, 1895. The full caption of the paper on the programme was: "History Teaching in Schools, with some Reference to the Report of the Conference on History to the Committee of Ten."

activity—the whole train of cognition, feeling, and will—has its rise in the establishment of such points of contact. Potent as the mind is, it cannot act, and so cannot make increase, in vacuum. These facts or objects of knowledge are divisible into three classes, the facts of Nature, the facts of Society, and the facts of the Mind itself. These are the primordial agents or factors of human cultivation, as seen both in individual history and in race history. In both spheres, they antedate teachers and schools and education, as these terms are commonly understood. In the attrition of the mind with natural facts, originates natural science; in attrition with social facts, social and moral science; and in attrition with mental facts, mental science. To define the relations of these several groups of factors, and their comparative values, is beside the present purpose, except to say that, for the most part, they run side by side through the conscious life; that their interaction is constant and powerful, although not uniform in different persons or in different periods of the individual life; and that they are all essential in something like relative measure to a well developed mind.

These primordial agents of human cultivation are powerfully re-enforced by a secondary group. As the first men and women acquired experience through attrition with the worlds of nature, of society, and of the spirit, they imparted to one another what they had learned, and thus taught one another. *Ex hypothesi*, up to this time all knowledge had come from original sources; henceforth second-hand, or derivative, knowledge, and so tradition and authority, play their part. So we are led to analyze the group of secondary factors. First in time and in power, comes spoken language or oral tradition; then follow material monuments of various kinds; next come symbols, including the rude art of the savage, picture

writing, and the Parthenon frieze, and last of all writing and its corollary, printing. These last factors of cultivation are plainly derivative; they mean nothing save as they rest upon a previous culture. Their relations to one another, and to the primary factors, do not here concern us, beyond the observation that there has been a tendency, and particularly since the invention of movable types, to exaggerate the fourth division of the secondary group.

Avoiding all the questions that are suggested by the words "humanism," "classicism," "realism," and "naturalism," let us fix the location of history in the chart of human culture. First, however, the Father of History wrote his immortal book, as he says, that the actions of men might not be effaced by time, nor the wondrous deeds of the Greeks and the Barbarians be forgotten. He has thus defined in a general way the field of history: it is the field of the actions or deeds of men. But what actions or deeds does it embrace? Shunning the various controversies that a detailed answer would perhaps excite, let us say that history is the story of man's more serious and valuable experience in the most important spheres of his activity—in politics, war, religion, art, industrial achievement, education, scientific discovery, and moral endeavor; and that its sources go back to every one of the secondary agents of education—tradition, monuments, symbolism, and the written page. Seizing first those actions of men that constitute the body of history, the student rests not until he has discovered the spiritual elements out of which these actions have sprung. History is therefore philosophy teaching by examples. Even Froude, who scorned both the science and the philosophy of history, and said it was but a drama, admitted that it does teach the difference between right and wrong. And when this

much is said, what need be added to show its high educational value? History is one of the main channels through which the experience of the race is communicated to us; and to ask whether it is worth while to pay attention to what it conveys, is to ask whether it is worth while to defer to experience at all. If it is profitable to study the formation of crystals, the hatching of eggs, the germination and growth of seeds, and the surrounding social environment, *a fortiori* is it profitable to study the evolution of humanity from its lowest to its highest forms. As in the lower sphere of life man cannot reach his ends when cut off from association with men, so he cannot meet the ends of the higher sphere when cut off from the past.

Having thus assigned to history its place in the circle of educational agents, I do not think that it is necessary to insist, point by point, that it trains the memory, stimulates the imagination, furnishes guiding knowledge, and cultivates the faculties of reason. But I would observe, with Bishop Stubbs, that history is a great school of the judgment; and all the more valuable because it deals with moral or probable elements, or just such elements as the pupil now encounters in the home, the school, and the church, and just such elements as he will encounter in the town meeting, on 'change, in legislative halls, and in administrative offices. "If you would understand history," said Charles Kingsley, "study men." How desirable it is that all persons in public life, and especially educators in every sphere, should be trained in this great school! In any active political community, the study of the history of a similar community is the study of real life; and it fits the student for practical affairs in as real a sense as work in a biological laboratory fits him for the study of animated nature.

The views presented are also conclusive on another point, viz: that the subject of history should receive more attention than at present in the schools. The only open question is, How much more? The Conference on History declares in resolution 1, that history and kindred subjects should be a substantial school study in each one of eight school years; in resolution 2, that this work should be consecutive; while the amounts of time recommended in resolutions 14, 16, 17, to be set apart to the various divisions of the subject, are not less than three forty-minute periods throughout the eight years, or a total of about nine hundred exercises in all. Moreover, the Conference urges that this total shall be equally divided between the grammar school and the high school. The Committee of Ten, dealing with high schools only, fails to meet the views of the Conference in both the main points. In its model classical course it puts four periods a week in the first year, three in the second year, none in the third year, and only offers three in the fourth year as an alternative for mathematics. In the Latin and Scientific course the assignment is four periods the first year, none the second, two the third, and the same alternative the fourth as in the Classical course. These requirements the Modern Language course merely duplicates. In the English course history fares better. Four periods are given it in the first year, three the second, four the third, and three the fourth. The minimum is a total of six periods, or about two hundred and forty exercises; the maximum fourteen periods, or about five hundred and sixty exercises. We need not suppose that the failure of the Committee to meet the views of the Conference is a case of loving Caesar less or Rome more, but a case of finding suitable room for all the studies that it felt bound to accommodate. The superintendent of schools also is

quite certain to demand of the Conference where he is to find time for nine hundred exercises in history. Into these questions of detail it is less important now to enter than it is to insist that more time shall be found for the subject, even at the cost of reducing somewhat the time accorded to other subjects. Asked to name what subjects, I should say,—in the grammar school, arithmetic and geography; in the high school, mathematics, language, and physical science. This, be it observed again, in case it is necessary.

At what stage of his school life should the pupil be introduced to history? The reply of the Conference is, at the beginning of the fifth year. My own reply is, at the beginning of the first year. On this point the practice of the Herbartian pedagogists is in the main correct. I am not now particular to inquire whether or not “the material for the instruction that is to mould character should be sought in the development of the national culture, which is to be followed in its chief epochs;” or whether *Gesinnungs-Stoff* should control education in its early stages; or whether “history and literature naturally constitute the core of concentration;” or, indeed, whether, in the Herbartian sense, there is such a core. It answers my purpose to insist upon the introduction of history into the first year of the school, and upon its continuance to the end thereof. Perhaps it would be difficult to arrange for a German child a better introduction to the subject than Ziller’s double historical series, irrespective of the theoretical views that lie back of it. This is the series:

First year, Grimm’s Fairy Tales; second year, Robinson Crusoe; third year, (1) Bible Stories from the time of the Patriarchs, (2) Legends of Thuringia; fourth year, (1) Bible Stories from the time of the Judges, then of the Kings, (2) Niebelungen Tales; fifth year, (1) Bible Stories from the time of Christ, (2) History of

Henry I, Otto I, Charlemagne; sixth year, (1) Bible Stories from the time of Christ continued, (2) Migration of the Nations, Roman Empire and the Popes, the Crusades, the Middle Ages, Rudolf von Hapsburg; seventh year, (1) the Original Congregations of Churches and the Apostle Paul, (2) Discovery of America and its first settlement, history of the Reformation, the Thirty Years' War; eighth year, (1) Instruction in the Catechism, (2) Frederick the Great, the Napoleonic Wars for Independence, the Restoration of the German Empire.¹

Around this core all other instruction is grouped. One reason for making such large use of the Bible, is the fact that Biblical history is everywhere taught in the German schools.

When the child comes to school, at the age of six years, he is eager for stories, perhaps for the reason that their soul is activity, of which he is so fond; stories are congruous with his reading and language lessons, and with the books that he learns to read outside of school; while they may be so chosen that they shall convey valuable content, furnishing the very stuff that the child both wants and needs. Furthermore, what is the story but a simple form of history? Some etymological accident made "story" by knocking a syllable off from "history." Story and history are but earlier and later forms of tradition, and at first they differed only in the kind of language in which they were told. In time history assumed a more dignified form; but in Herodotus the early form is very observable, while it is still common to call the masters of historical narration great story-tellers. It is not a conceit to say that there is a striking parallelism between the development of historical knowledge in the individual and the development of historical art. The child listening to nurse's tale or old wife's fable, the child pouring over his book of stories, full of incident and adventure, and the

¹ De Garmo: *Herbart and the Herbartians*, pp. 119, 120.

child studying his book of formal history travels in a few years that long road the three sections of which are marked in history by oral tradition, by such writings as those of Herodotus, Livy, and Froissart, and by the profound works of Thucydides, Tacitus, and Polybius. Now it is more than probable that the members of the Conference on History would agree to all that I am saying, with the proviso that they do not call tales history. But I should reply that, pedagogically speaking, there is no qualitative difference between them; and that you can no more separative the three periods in the child's life sharply than you can separate them sharply in the history of the race. Still, I am not sure that the Conference would meet my views, because it makes no mention of either biography or mythology until the beginning of the fifth school grade.

What shall be the range of the work attempted? What the subjects chosen? The Conference answers with the following programme:¹—

First year.—Biography and mythology.

Second year.—Biography and mythology.

Third year.—American history and elements of civil government.

¹It was not mentioned in this paper, as no doubt it should have been, that the Conference also framed an alternative six-year course for schools which are not able to support the longer programme, viz:

First year.—Biography and mythology.

Second year.—Biography and mythology. [In the intervening year or years, if any, historical reading should be pursued as a part of language study.]

Third year.—American history and civil government. [At this point the pupil would naturally enter the high school.]

Fourth year.—Greek and Roman history, with their Oriental connections.

Fifth year.—English history. [To be so taught as to elucidate the general movement of medieval and modern history.]

Sixth year.—American history and civil government.

Fourth year.—Greek and Roman history, with their Oriental connections. [At this point the pupil would naturally enter the high school.]

Fifth year.—French history. [To be so taught as to elucidate the general movement of medieval and modern history.]

Sixth year.—English history. [To be so taught as to elucidate the general movement of medieval and modern history.]

Seventh year.—American history.

Eighth year.—A special period, studied in an intensive manner, and civil government.

Before commenting on this scheme, I wish to present the one that is followed in the elementary schools of Baden, Germany:—

First year (third grade). Historical tales related by the teacher and repeated by the pupils several times.

Second and third years (fourth and fifth grades). Historical tales continued, their number augmented. Brief outline of the history of the village or town and the district, the latter connected with the geography of the district. Short biographies of national heroes.

Fourth year (sixth grade). Brief outline of Grecian and Roman history. Several parts dealt with in a more detailed way; e. g., the Persian wars. Alexander the Great, the wars between the Romans and Germans, the invasion of the Barbarians. Historical compositions embracing both biographies and tales. Historical essays in the reading-book, read and explained.

Fifth year (seventh grade). History of the Middle Ages in Germany, dealt with in the same way as the ancient history in the fourth year. Much stress laid upon the Crusades and the end of the Middle Ages. Historical tales, biographies, essays in the reading-book as in the fourth year.

Sixth year (eighth grade). Modern times, especially in Germany. History of the Thirty Years' War, the Seven Years' War, the wars against Napoleon, and the war of 1870-71 dealt with in a complete manner. History of France from 1648 to 1815, chiefly the French Revolution. Tales, biographies, essays continued; longer compositions (the pupils') than previously.

In teaching history, no text-book is used; only oral instruction by the teacher, and a few notes taken by the pupils.

This programme suggests one important point of difference between German and American history. Germany has long lain directly in the main stream of the world-movement, while America from the beginning has lain outside of this stream. German history is primarily a part of general history, while American history is such only in a secondary degree. The German pupil establishes his historical connections with the world-movement directly, the American pupil only by the way of England. Then, historically, as well as geographically, the German is much nearer to Greece and Rome. To a great extent the German's study of Italy or France is a study of Germany itself, but in our case this is true only to a limited degree. The result is that the German pupil makes the transition from national history to general history far more easily than the American. This view of the subject is little likely to be questioned. It is here presented as a reason for questioning the wisdom of introducing Greek and Roman history, with their Oriental connections, at least as a formal study, into the grammar school. It must be remembered that the typical pupil of fourteen years of age is not very mature in mind. Besides, it may well be doubted also whether, if foreign history is to be introduced into the grammar school, it would not be better to introduce portions of English history. I cannot think the German example at this point is a safe one to follow. But while I have serious doubts about the formal study of Greece and Rome at this stage of progress, I have none whatever about bringing in, not merely the fable, the myth, and the legend found in Homer and Virgil, but also the biographies of the Grecian and Roman heroes and sages. Can we not rehabilitate Plutarch, and if we can, would it not be worth more to our youth than such formal study of Grecian and Roman history as would be possi-

ble, no matter whether he goes to the high school or at once to active life?

It should be observed, also, that the German programme says nothing directly about the Orient, and that the American programme only mentions its connections with Greece and Rome. To be sure, nobody knows very definitely what their early "connections" were, but I assume that the conference would not go back of the great struggle between Persia and Greece. Everybody should have a general knowledge of the Hebrew Bible; but beyond this we should not, in general education, concern ourselves with Asia until we reach the epoch across which are written in letters of light the names Marathon, Thermopylæ, Salamis, Platea. For practical purposes, outside of religion, we may regard general history as beginning with Greece. Whatever one may think of some of Dr. Freeman's historical theories, he will hardly dissent from these words in respect to Greece:

The Greeks, with their many small states, were the first people from whom we can learn any lessons in the art of politics, the art of ruling and pursuing men according to law. The little commonwealths of Greece were the first states at once free and civilized which the world ever saw. They were the first states which gave birth to great statesmen, orators, and generals, who did great deeds, and to great historians, who set down those great deeds in writing. It was in the Greek commonwealths, in short, that the political and intellectual life of the world began.¹

Or from these words in respect to Rome :

The nations which have stood out foremost among all have been the Greeks, the Romans, and the Teutons. And among these it is the Romans who formed the center of the whole story. Rome alone founded a universal empire, in which all earlier history loses itself and out of which all later history grew.²

¹*General Sketch of History*, pp. 21, 22.

²*Ibid.*, pp. 16, 17.

On one point that the Conference has touched, I wish to utter no uncertain sound. The "acquirements of a body of useful facts" is pronounced "the most difficult and the least important outcome of historical study." The principal end of history in the schools, as of all education, is declared to be the training of the mind. To these expressions, properly understood, there can be no rational objection. Still, they seem to ring of the venerable dogma of formal discipline. They seem almost to suggest that profitable historical study can be carried on without the acquirement of a body of useful facts. While it is true that the acquisition of facts and real mental training are not necessarily measures each of the other, still they cannot be wholly separated, and in good teaching they are not separated at all. The mind cannot be disciplined by nothing; it works only as it works upon something. For one, I stand much in fear that the facts taught in the schools will not be well chosen, and that they will not be well taught; but, waiving these two points, I have no fear that too many facts will be taught, unless, indeed, the subject is allowed to encroach upon other subjects. To suppose that too many facts will be taught, is to suppose that too much history will be taught. However, I have no good word to say for the old-fashioned memoriter method, and cheerfully grant that the facts are only a means to an end.

At this point I wish to read, with some comments of my own, a statement recently made by Professor H. Morse Stephens, who came the last year from Oxford to teach European history at Cornell University.

Professor Morse Stephens, Cornell's new Professor of European History from Oxford, has made some interesting comparisons between English and American college students. He concludes that the average American undergraduate takes a more

comprehensive view of history, has a better grasp of its essential facts, and surpasses his English cousin of corresponding grade in power of generalization; but the American student is lamentably deficient in his knowledge of details and also writes very poor English. Professor Stephens thought the essays written by his undergraduate students at Cornell were on the whole better than similar essays written by English students at Cambridge, although he sharply criticised the spelling, grammar, and generally careless style of the Americans. When, however, he set his American students an examination of twenty questions concerning dates and places, he was overwhelmed by the lack of knowledge of facts displayed in the answers. More than half of the class failed to pass the examination, the average percentage being about 40, and as a rule the students who wrote the best essays handed in the poorest examination papers.¹

Competent judges are not likely to question the general accuracy of this interesting statement. The explanation of the facts stated is found mainly in the aims of English and American education, and in the methods of instructions that are employed, particularly in the secondary schools. First, English teachers lean more on lectures, or other oral instruction, and so on writing and notebooks; American teachers, more on oral recitations and on general summaries. One result is that the English boy is trained to spell and write better, and to use more correct English, than the American boy. The one is methodical and correct in form where the other is discursive and slip-shod. But, secondly, the American pupil's peculiar discipline gives him comprehensive views of a subject, a better grasp of large facts, and a considerable mastery of generalizations, which have their unhappy compensation in a deficient knowledge of details, as well as a defective use of English. The American pupil is certainly not strong in names and places. The natural tendency of the recitation method is here rein-

¹ *The Dial*, January 16, 1895.

forced by the very common disposition on the part of teachers to disparage details. *A mere fact! only a date!* is the contemptuous phrase with which the careless or ignorant teacher often dismisses one of those little things that constitute the very staple of history. In some quarters it has actually come to be a fashion to disparage the man of large information, of full knowledge, regarding him merely as a patient drudge. It is now common to berate the schools for teaching too many facts. Facts may possibly be badly taught in the schools, or they may be ill chosen; it is not true, however, that American pupils are strong in facts, but the contrary. In the third place, there can be no doubt that the typical English boy who comes up to the University has received a more regular, a more systematic, and a more thorough training than the typical American boy. Of its kind, he has been taught in a better school. Once more, it is an old saying that the English mind runs to details rather than to general views and philosophical principles. Such is the constant charge of the French and German critics. While there can be no doubt that the English mind handles an enormous amount of fact-material, it may still be doubted whether Englishmen are remarkable for a nice accuracy in their facts. There is reason to think the contrary. The question whether the American student, with his good essay and poor examination paper, is better or worse off than the English student, with his good examination paper and poor essay, is a question that will not here be considered; the truth is that measurable excellence should be obtained in both exercises.

Perhaps no part of the Report of the Conference has provoked more criticisms than the recommendation in respect to the intensive study of some period of history,

or some historical subject. It will have been observed that such study is found in the schools of Baden. The recommendation seems to me a good one, provided time can be found to do the work, and provided the phrase "intensive study" be understood in a sense sufficiently limited or relative.

Worthy of all praise are the remarks that both the Conference and the Committee of Ten have offered on the importance of saving time through the better co-ordination of subjects. Without entering upon the general merits of the doctrine of Concentration, about which we are now hearing so much, I wish to say that instruction in history, in language and composition, in geography and civil government, can be so organized as at once to save time and to secure better results than at present. These subjects are as congruous as any subjects found in the curriculum, and are as capable of close articulation.

It is not necessary to go with Dr. Freeman in declaring that the fields of politics and history are co-extensive, in order to find firm ground on which to rest the teaching of civil government in the schools. I quote with entire approval resolutions 28 and 29 adopted by the Conference:

That Civil Government in the grammar schools should be taught by oral lessons, with the use of collateral text-books, and in connection with U. S. History and local geography.

That Civil Government in the high schools should be taught by using a text-book as a basis, with collateral reading and topical work, and observation and instruction in the government of the city or town and state in which the pupils live, and with comparisons between American and foreign systems of government.

This direct observation and study of the government of the city, town, and state is equally important, and even more important, in grammar schools; foreign systems of government, for the most part, and certainly comparisons

between them and our own systems, should be deferred to the high school.

The Report closes with the recommendation that only teachers who have had adequate special training shall be employed to teach history and related subjects. To the obvious objection that such teachers are not to be found in numbers sufficient to carry out the programme in the schools of the country, the Conference would probably reply that the teachers can be provided as rapidly as the schools can be put in shape to receive them.

The present subject, as well as several others on the programme, has been immediately suggested by the discussion that has been going on the last three or four years relative to secondary education. In this discussion the central questions have been, What studies shall form the staple of such education? and, In what order and proportion shall they be combined? Upon only one phase of the general subject do I wish to comment. Causes that are here wholly irrelevant imposed upon the nations of modern Europe a foreign culture conveyed in foreign tongues. The ancient classics became, not merely a department of study, but practically the field of study. The fact was most anomalous. The ancient Jews, who certainly proved themselves a tough and enduring nation, knew no literature and no history outside of their incomparable Scriptures, which were to them a national literature in the best sense of the term, and not merely a book of religion. The Greeks, who were the ablest race intellectually that the world has seen, were nourished exclusively upon a national vernacular culture. Even the establishment of the Greek arts in Rome following the conquest of Greece, fell far short of the establishment of the Classical Tradition in breadth and permanency.

of influence. In recent times the power of this tradition has been broken; it is no longer considered necessary that an educated man shall study Greek, or even Latin. Into the general merits of the question, I do not propose to go. It is unmistakable that there has been a strong drift towards modern studies. Has this drift reached its limit? I cannot think so. While the old humanities will never be banished from the schools, they can hardly continue to hold relatively even the diminished place that they now occupy. Modern studies, and particularly vernacular studies, will encroach upon them still more. This fact has been very apparent in the discussions of the last three years. Moreover, it cannot be reasonably doubted that, in the future, increased emphasis will be laid upon the national history and literature as a means of forming the national mind and character.

XI.

THE MORAL AND RELIGIOUS TRAINING OF CHILDREN.¹



F the various contributions that have been made to the theory of education in recent years, the doctrine of apperception is perhaps the most important. This idea was first applied to philosophy by Leibnitz, but its germ is found in one of the works of Aristotle.² From the time when men first began to take note of their own thought-processes, some of them, at least, must have seen more or less clearly that we look at the world through ourselves, and that what we see, and what we learn, depends in great part upon what we already know and are. The idea is not therefore really new. Still the German pedagogist Herbart and his disciples have analyzed it so much more thoroughly, have defined it so much better, and especially have applied it to practice so much more fully, that it seems to us almost a new revelation.

The word “apperceive” is derived from *ad, to*, and *percepere, to grasp* or *to clasp*. It literally signifies the

¹ An address delivered before the Ohio Christian Missionary Society, Columbus, O., May, 1895.

² “All teaching and learning by way of inference proceed from pre-existent knowledge. Of this we may be satisfied by examination of instances: it is thus that the mathematical sciences and the arts are acquired; the dialectician’s induction and syllogism both appeal to previous knowledge, the one of the phenomenon, the other of the law: and the orator persuades by example and enthymeme, the one a kind of induction, the other of syllogism.”

—*The Posterior Analytics.* Poste’s translation.

grasping or clasping of one thing to another, a uniting, adhesive process. But the Latin verb also means *to see* or *perceive*; so that, taken figuratively, apperceive means *to see or perceive one thing by way of another*, or the coalescence of a new idea with an old one by modification. As now used by pedagogical writers, the stress is thrown upon the element of modification. One distinguished writer says apperception is "that psychological activity by which individual perceptions, ideas, or idea-complexes are brought into relation to our previous intellectual and emotional life, assimilated with it and thus raised to greater clearness, activity, and significance."¹ A second writer, entering into more detail, says that to explain apperception we must contrast it with perception. "In *perception* we have an object presented to our senses, but in *apperception* we identify the object or those features of it which were familiar to us before; we recognize it; we explain it; we interpret the new by our previous knowledge, and thus are enabled to proceed from the known to the unknown and make new acquisitions; in recognizing the object we classify it under various general classes; in identifying it with what we have seen before, we note also differences which characterize the new object and lead to the definition of new species or varieties. . . . By it we re-enforce the perception of the present moment by the aggregate of our own past sense-perception, and by all that we have learned of the experience of mankind."²

Viewing the subject thus, we see that the mind is not something that is inert and dead; not a sheet of blank paper upon which you may write what you please; not a

¹ Dr. Lange: *Apperception*, p. 41.

² Dr. W. T. Harris: *A Text-Book in Psychology*, by J. F. Herbart. Translated by Margaret Smith. Editor's Preface.

ball of clay or wax to be moulded into any form, but that it is rather a self-active principle or energy. It will also be seen at once that the processes of learning and teaching are not to be compared to the operations of a machine, but rather to the vital processes of vegetable and animal life. An idea touches a new object and changes it into its own nature; or, perhaps it would be better to say, a new object is set like a scion in the stock of an old idea and, through assimilation, becomes an idea itself. It is only the "engrafted word" that is able to save the soul.

Some simple illustrations will make these general propositions fully intelligible. A young child calls every man "papa," every woman "mamma," and attributes to them the same qualities that he has discovered in his father and mother. He says his broken cart is "naughty" because it will not run, and, assuming that it has life and feeling like himself, proceeds to beat it. He feeds his big toe with a spoon. One child seeing a picture of a serpent called it a tail; a second called a swan that he saw swimming in the water a fish; a third, brought up in the South, called snow-flakes when he first saw them butterflies; while of two other children who stood looking at a pair of mules, one called them horses and the other rabbits. Children of a larger growth do the same thing, only they learn to be more wary in expressing their first ideas. When the Romans first saw elephants they called them Lucanian oxen. The man who has most ideas has most centers of assimilation, and so can learn most rapidly. A botanist sees a hundred things in a pond of water that are hidden from the clown; an old traveler is the man who finds most in a new country; while only a scholar discovers much in a library. Accordingly, it is not strange but as natural as natural can be that a conversation, a

sermon, or a book is a different thing to different persons. "What can we see or acquire," asks Emerson, "but what we are? You have seen a skillful man reading Virgil. Well, that author is a thousand books to a thousand persons. Take the book into your own hands, and read your eyes out; you will never find what I find. If any ingenious reader would have a monopoly of the wisdom or the light he gets, he is as secure, now that the book is Englished, as if it were imprisoned in the Pelew's tongue."

Thus far the argument has turned on sensible objects. But it may turn on objects that are not sensible. The images that we first form of mental facts—our primal notions of spiritual things; our early views of men and life; our original opinions about subjects,—these tend to change the facts of our later experience into their own image. The mind is subdued to its material and moral environment. A late writer has said in dealing with a famous French woman who lived at the beginning of this century:

Our earliest impressions of the external world become, unconsciously to us, the prism by which everything is afterward colored. With Chateaubriand, it was the gloomy solitudes of Combourg, the heavy mists, skirting the ocean and bounded only by the forests through which the storm winds whistled. With Lamartine, it was the hills of Milly, a country home with quiet neighboring paths, a soft and filmy sky, a dim and fleeting horizon, a pious childhood at a Christian mother's knee. With Madame de Staël, it was in private life the scenes of a happy home, and in public those of a salon which was the meeting-place of the best intellects of the time,—where jest and inspiration followed each in turn; where all literary questions and all the problems of the universe were discussed, and where, as a contemporary has remarked, they discoursed endlessly upon "the great truths of Nature, the immortality of the soul, the love of liberty, and the charms and dangers of the passions." A house like her

parents' was always her ideal of home; happiness in marriage was her Utopia, and to reign over a *salon* was the ambition of her life.¹

From what has been said some very important practical conclusions flow.

One is that present ignorance is a bar to future intelligence. Paradoxical as it may sound, a man may be so ignorant that he cannot learn, or at least can learn but little. It is related that a band of Esquimaux walked through the streets of London utterly indifferent to their surroundings. "The explanation," observes the writer who furnishes the incident, "is simple. These inhabitants of the frozen North had no store of related predicates with which to interpret the wonders about them. We have no interest in that for which we have no understanding, no related concepts."²

A second conclusion is that one's present ideas and feelings, in addition to stimulating his mental activity, also tend to shape its character. The idea that a child has formed of an object becomes a standard by which he compares and measures a new object, and particularly a similar object, that is presented to his mind; while the feeling that he has associated with one object attaches to a new object that resembles the former one. Thus the mind, reacting upon environment, forces upon it its own view or nature. In so far as the two objects are alike, the identification is correct and helpful; in so far as they are unlike, it is false and misleading. Still the child gains more than he loses; if he were robbed of the power of interpreting things through classification, and were compelled to begin again at the beginning with each new experience, his growth in knowledge would be extremely slow.

¹ Sorel: *Madame de Staël*, p. 7.

² DeGarmo: *Essentials of Method*, p. 30.

A third conclusion is that the child should learn through experience to correct the false interpretations that he tends to force upon surrounding objects. To-day he will promptly call a snake a tail or a mule a rabbit, but to-morrow he will hesitate, will wait for a fuller view of the new object, and so protect himself against his own first impression. The laughter that his classifications excite tends to put him upon his guard. This is why adults are slower than children to refer new experiences to the old familiar classes. To promote such hesitation—that is, somewhat to check the apperceiving process—is a great matter in education.

Still when all has been done that is possible, this doorway through which so many errors enter a man's mind can never be closed. His mind may be virgin at first, but it soon loses its virginity. His ideas, opinions, and feelings are lenses through which he sees everything about him. He may accept theoretically the warning of the moralist to judge his fellowmen as they are, and of the preacher to read the Bible as it is; but practically he looks at men and Bible alike through his mental and moral attainments; that is, through the sum-total of his culture. He sees through a glass darkly, not face to face. What we call *bias* and *prejudice* are not always, or perhaps commonly, a state of the feelings merely, and they are not directly subject to the will. Struggle as he may, a man cannot get away from himself. In respect to opinion and faith, he can no more throw off his former mental habits suddenly than he can cast out his bodily humors. All that he can do is to turn new facets of his mind to the subject, to view it under new aspects, to search for hidden points of contact, to discover grounds of agreement that at first are not apparent. And this, no doubt, is a great deal. Here appears the advantage that the man of wide

knowledge, full experience, and sympathetic spirit has over the man who is without these qualities; he is more cautious in making up his mind, and is more likely to discover truth, beauty, and goodness. The old conception of a liberal education was, that through its isolation of the spirit is broken down and mental freedom established. Such education is called liberal, perhaps because it frees or tends to free the mind from its own ignorance and narrowness. Something, of course, depends upon the original or positive character of the individual. Some minds are more responsive to environment than others; some have more and some less power to protect themselves against the errors and mistakes that root in the personality.

Still a fourth conclusion is that teaching may be too thorough, that instruction may be overdone. Remember that we are dealing now with the young mind, which should not be cribbed and confined in a narrow cell of habits, but should acquire range as well as intensity of view. Than this, no stronger argument for wise teaching can be brought forward. Subject to inheritance, the teacher holds the child's mind in the hollow of his hand. The physiological psychologists have their peculiar explanation of the main fact that has been set forth. That intensified form of mental activity which we call apperception is the result, they tell us, of the energizing and correlation of the nerves or the brain-tracts, and this is probably enough. But no matter what the explanation may be, the plain fact, while it has its unpleasant aspect, is still the pledge of all force and persistence in human character.

Once more, the moral or religious teacher will find in apperception the key to many perplexing questions. In grace, as in nature, the mind cannot respond to what it

does not in kind already have. God made his first revelation to man when He gave him his mental and ethical being; that is, created man in His own image; and the highest test of the value of the Scriptures is the fact that they touch this primal revelation at so many points. The very assumption that God revealed Himself, or that He could reveal Himself, to a being in whom He did not already implicitly exist, is a great absurdity. A nerve does not respond to light or sound unless it is sensitive to it by nature. Beautiful pictures do not appeal to the man who has no eyes, or fine music to him who has no experience of sweet sounds; and no more do spiritual lessons awaken a response in the soul of him who has no piety in his heart or purity in his life. Wordsworth wrote:

Imagination needs must stir
Minds that have nothing to confer
Find little to perceive.

And Coleridge:

Dear lady, we receive but what we give,
And in our life alone does nature live.

It should not be thought strange therefore that opinion and faith, especially when we take large numbers of men together, change but slowly. The truth is that the so-called great and rapid changes are always preceded by some sort of a preparation. Historians are constantly remarking the influence of old systems of thought upon new ones. How persistently the twelve Apostles read Jesus through their Jewish ideas and feelings! How slowly did they grope their way out of themselves! The differences of Jewish, Greek, and Latin Christianity, which are so observable, originated in the Levitical ideas of the Jewish mind, the philosophical ideas of the Greek mind, and the juridical ideas of the Roman mind.

But it is time to draw nearer to our special subject, although in fact we have not been far from it at any time. A man's religion largely determines his relations to this life, and it wholly determines his relations to the life that is to come. It gives him his ethical ideal and supplies him motives. Carlyle once said that a man's religion is the chief fact with regard to him. Hence the question of religious training is one of supreme interest and importance.

All that has been said of the secular mind is equally true in principle of the spiritual mind. It may well be true that material things have no original power to generate spiritual ideas and feelings, but that such ideas and feelings must proceed from spiritual things. It may well be that, as natural knowledge originates in the contact of the mind with natural realities, so spiritual knowledge originates in its contact with moral and religious realities. There can be no doubt that considerable refinement and subtlety of thought is required to find

Tongues in trees, books in running brooks,
Sermons in stones, and good in everything;

or to feel that

The meanest flower that blows, can give
Thoughts that do often lie too deep for tears.

Still spiritual knowledge and feeling have a humble paternity. We may say that religion moves at different times in three spheres.

The first is the nature-sphere. The feelings of wonder, mystery, awe, sublimity, solemnity, and grandeur that spring from communion with nature are the raw material out of which the religious feelings that bear the same names are formed. The abundant use that the Testaments make of natural objects and scenes to create spir-

itual thought and feeling, is most significant. "Howbeit, that was not first which is spiritual, but that which is natural; and afterward that which is spiritual." The second sphere is that of man and society. It is in personal contact with his nurses, parents, brothers and sisters, and mates, that the child's first conceptions of obedience, law, rule, authority, justice, truth, reverence, sympathy, piety, mercy, purity, spring up, and that the fountains of moral feeling are unsealed. Moreover, it is in similar commerce with men and women of the world that these conceptions are developed and the channels of these feelings deepened. The last sphere is the God-sphere. The moral ideas and feelings are common to both ethics and religion; while they do not always culminate in a large religious development, they are nevertheless essential to the religious ideas and feelings. Strengthened, clarified, and adjusted to God as a center, they constitute religion. It will throw light upon the growth of religious ideas to sketch the growth of moral and civic ideas more fully.

As remarked, it is in the family, in personal contact with its members, that the child forms the habits of obedience and deference to others. It is here that he learns, in a rudimentary and experimental way, that he is a part of a social whole. Here he acquires the ideas to which we give the names *obedience, authority, government*, and the like. His father (if we may unify the family government) is his first ruler, and his father's word his first law. Legislative, executive, and judicial functions are centered in a single person. These early habits and ideas are the foundations of the child's whole future education in government, both practical and theoretical. His future conception of the governor, president, king, or emperor is developed on the basis of the idea of father; his con-

ception of society on the basis of the idea of home; his conception of government by the state on the basis of family government. Only these early habits and ideas are expanded, strengthened, and adjusted to new centers.

While still young the child goes to school. On the governmental side this is but a repetition of the home. It is the doctrine of the law that the teacher takes the place of the parent; *in loco parentis*. The new jurisdiction may be narrower than the old one, but it is of the same kind. The education of the school re-enforces the education of the home in respect to this all-important subject. The habits of obedience and deference are strengthened. The child's social world is enlarged. At first he thought, or rather felt, that he was alone in the world; then he learned that he must adjust himself to the family circle; now he discovers that he is a member of a still larger community, and that he must conduct himself accordingly. The ideas of authority, obedience, and law are expanded and clarified.

About the time that the child goes to school he begins to take practical lessons in civil government. This also is developed on the basis of his previous home-training. It begins at the very door-step. The letter-carrier, the policeman, the justice of the peace, and the postmaster introduce him to the government of the outer world. Some or all of these officers he sees or knows, and others he hears about. The very mail wagon that rattles along the street teaches its lesson, and so do the other symbols of authority that confront him. He attends an election and hears about the caucus. As he grows older, the town council, the court of the local magistrate, and the constable or sheriff teach him the meaning of the three great branches of government. His ears as well as his eyes are open. Politics is the theme of much familiar conversation

to which he listens. With all the rest, he reads the newspaper, and so enlarges his store of political information.

Still other agencies contribute to the grand result. The church, public meetings, societies of various kinds, all teach lessons of order and discipline.

Such, in general, are the steps by which the child makes his way out of the world of isolation and selfishness into the world of social activity and light. Such is the character of his early education in morals and practical civics. Nor is it easy to overestimate these early lessons. To suppose that the child's political education begins with reading the Constitution of the United States, is like supposing that his moral education begins when he is first able to follow the preacher's sermon.

At first, man is thoroughly individual and egoistical: The human baby is as selfish as the cub of the bear or fox. He is the most exacting tyrant in the world. No matter at what cost, his wants must be supplied. Such is his primary nature. But this selfish creature is endowed with a higher, an ideal nature. At first he knows only rights, and these he greatly magnifies; but, progressively, he learns, what no mere animal can learn, to curb his appetites, desires, and feelings, and to regard the rights, interests, and feelings of others. In other words, the human being is capable of learning his relations to the great social body of which he is a member. Mere individualism, mere egoism, is compelled to recognize the force and value of altruistic conviction and sentiment. And this lesson, save alone his relations to the Supreme Being, is the greatest lesson that man ever learns. Moreover, the two lessons are closely connected.

Filial piety in the home is a preparation for piety toward God. Fraternal love in the family comes before fraternal love in the church and in the world. The supernatural is builded upon the natural, the Divine upon the human. "Whoso hath this world's goods, and seeth his brother have need, and shutteth up his bowels of compassion from him, how dwelleth the love of God in him?" "If a man say, I love God, and hateth his brother, he is a liar; for he that loveth not his brother whom he hath seen, how can he love God whom he hath not seen?" And so with the other spiritual qualities. How can a man who despises or contemns his father reverence God and obey Him? The method of religion is from the seen to the unseen, from the known to the unknown. But that is not all. It is no impiety to say that a man's first God is his father, his first heaven his home; and if that father has been impure or cruel, or that home unhappy, the phrases "Father in heaven" and "the Father's house" lose much of their meaning and beauty. The fact is that we are quite incapable of estimating how far our religious ideas, feelings, and character have been shaped by the character of the homes in which we were reared. In so saying, formal religious instruction is left altogether out of the account. Indeed, we tend to exaggerate the value of such instruction as compared with the stream of unconscious influence that constantly flows into the life.

Rousseau urged that, previous to his sixteenth year, the child should receive no formal religious instruction whatever. He gave as a reason that before such time the child would misconceive and distort all religious ideas that were presented to him. "Let us refrain," he says, "from announcing the truth to those who are not in a condition to understand it, for this is equivalent to sub-

stituting error for it. It would be much better to have no idea of the Divinity, than to have ideas which are low, fanciful, wrongful, or unworthy of Him. Not to know the Divinity is a lesser evil than to have unworthy conceptions of Him."¹ Now it is impossible to deny that the young child is as superstitious as a savage, or that he is a natural idolater. But there are two objections to Rousseau's reasoning. The first is that you cannot keep the child away from religion if you would. His imagination, working on the mysteries about him, will create its own Olympus or Asgard. Still further, no matter how long religious teaching may be deferred, error and distortion of views cannot be avoided. Every man is for a time a devotee of superstition; he may pass out of it into a rational religion, he may fall into mere negation or no-religion, or he may remain superstitious, as most men do in some degree, to the end of his life. Accordingly, the ideal is not a denial of religious instruction, but such instruction wisely administered. We must remember the principle laid down by the Apostle: "When I was a child, I spake as a child, I understood as a child, I thought as a child; but when I became a man, I put away childish things."

Still Rousseau's counsel cannot be wholly thrown aside. There is a valuable truth in the doctrine of negative instruction, and it is a pity that he so exaggerated it. Let the child's mind work freely upon his moral environment, only take pains to shield him in his weakness against the false, hateful, and vile. Religious ideas and feelings should be left to develop naturally and should not be forced. Remember the silent influences of the home, which fall into the young soul with power more penetrating, more persuasive, more lasting, than Italian

¹ *Emile*, p. 230. Translated by W. H. Payne.

suns or Scandinavian snows. Unhappy the child who learns at home to read the world through clouds of sorrow, mists of prejudice, or flashes of passion ! Happy the child who learns to read it through the clear sunshine of wisdom, truth, and goodness !

What has been said of the home in respect to unconscious influence, applies in a measure to the school and the church. If they are what they ought to be, their indirect influence and effect will be great. The formal or external observances of religion play this part. Prayer, music, and the ordinances are clothed with spiritual sentiments by children too young to understand their deeper import; and the influence of symbols over immature minds is such that these observances are sometimes the last fastness of expiring religious faith and feeling. Again, the relation of the ethical and esthetical elements of worship, public or private, should not be disregarded.

But negative instruction will not suffice; there must be positive teaching. At this point two or three words of admonition should be spoken.

The first of these words is that formal spiritual teaching should not be unduly hastened. The reasons for this admonition have been once given, and need not be repeated. It is far more important to look after the child's conduct, and to adjust his environment as may be needed, than it is to teach him didactic lessons.

The second word is that the lessons, when they come, should be wisely chosen. Let them be such as will fortify and strengthen the child for the work of life. The parent or teacher should be upon his guard against dogma. First, it is to be considered that the ethical value of dogma is small. Dogma appeals to the logical faculty, not to the heart; it coalesces with the scientific, not with the

practical elements of the mind, and therefore fails to touch the springs of moral life and action. Simple is the intellectual apparatus directly correlated with virtue. Few are the doctrines immediately productive of good conduct. Remote indeed from life are many of the deliverances of the pulpit. But, more than this, dogma is often extremely harmful. Sometimes it is at variance with the facts of moral experience; sometimes it is a screen for a bad life; and often it becomes a burden.

Thinking men feel the need of some scheme of religious truth, but young children have no such need, and are rather harmed by such a scheme. A system of theological doctrines may be so welded upon the mind by teachers—apperception may do its work so thoroughly—that the child, when he becomes a man, can no more throw it off than a tortoise can cast away its shell. Besides, in cases where the system, less thoroughly riveted, is broken to pieces and thrown away, it is often at the cost of spiritual dislocations that cause great unhappiness and that sometimes end in complete religious wreck. Happy the Man of the Iron Mask in comparison with him who is spiritually shackled by a dogmatic system! The cries of religious despair, the wails of those who conceive themselves to be lost, the blindness of imprisoned spirits, resulting from dogmatic teaching—these things should convince us that great wisdom is needed in conducting the religious training of children. It is by no means clear that the Canaanites who passed their children through the fire to Moloch, were less cruel than Christian parents who immolate their tender offspring upon the altar of a hard and hopeless theology. If there is any one thing that would cause Him who put His hands upon the little children and blessed them, to seize again the knotted scourge with which He drove the money-changers from

the Temple, it must be the sight of Christian parents and teachers binding the souls of helpless infants and youth with the thongs of dogma, or pouring into them the poison of sectarian bigotry, envy, and hatred.

It may be thought that this last admonition relates to a state of things that has passed away. Happily this is true in part. Still, that state of things is far from obsolete, and the admonition is neither outgrown nor likely to be outgrown. In particular should parents and teachers be careful how they teach religion to children of sensitive temperament and active imagination.

I have remarked already that the intellectual apparatus which directly affects the spiritual life is simple. No doubt many facts and ideas affect it indirectly, and in the long run; but the religious lessons that need to be taught to children, and especially to young children, are few in number. The wisdom, purity, and goodness of God; the love of Jesus, the capacity of men for growth and happiness, and the duty to seek those ends; wisdom, purity, forebearance, justice, magnanimity, truth, and goodness; men reap what they sow—these ideas lie at the basis of the moral life. The great care of the parent or the teacher should be to commit the child to virtue and piety, and to leave theology to the future man or woman.

The creation of right habits, the proper development and regulation of the appetites, desires, and feelings, and the implantation of sound principles are all embraced in ethical cultivation; they are intertwined and mutually dependent; still, there is a constant tendency to exaggerate the value of the didactic element. It is far from true that habits, feelings, and ideas are always measures one of another. A severe character does not always go with a severe creed, and a liberal spirit is not always associated with liberal opinions.

Material for spiritual instruction adapted to the needs of the child exists in greatest abundance. The Bible does not contain it all, but it contains the cream. Still, it should not be taught to children indiscriminately. The Bible is pre-eminently a book to be used with judgment. The interest of much of it is historical, not unlike the interest that attaches to the laws of the Ten Tables. There are whole chapters which are as lacking in spiritual content as Homer's list of the Grecian ships and heroes that went to the siege of Troy. Portions of the Old Testament certainly suggest, if they do not inculcate, a morality that is outgrown, while other portions move in an environment so unlike modern life that they do not interest untaught minds. While the New Testament is in general superior to the Old, still it is not throughout of equal spiritual value. Highest on the roll of books stand the incomparable Gospels. Jesus is a better teacher of children than Paul. The story of Jesus and His great utterances, as the Sermon on the Mount and the parables of the Prodigal Son, the Good Samaritan, the Talents, and the Sower, should be fixed in every mind. The story of the Apostles and their sermons are to be preferred to their Epistles. And yet the Epistles contain matter admirably suited to our purpose. Paul's Song of Love and his Ode on Immortality, found in First Corinthians, are far better fitted to form the character than the theological discussions of Romans and Galatians. While inferior to the New, the Old Testament is still rich in spiritual teaching. Some of the tales, as that of Joseph, sermons of the prophets, passages of Job, parts of the Hebrew Wisdom, and many of the Psalms, are unsurpassed, if not indeed unequaled, as means for creating noble ideas and developing noble feeling. Still more, the educative value of the Scriptures is much increased by the noble language

in which the thoughts are clothed. And this fact suggests again the close connection between esthetical and spiritual impressions.

Two or three prudential remarks will fitly close this address.

No attempt should be made fully to satisfy the curiosity of children about spiritual things. The mysteries about them constantly suggest questions that must be deferred until a later period. Moreover, to decide what questions should be answered, and what passed by, calls for no little insight and common sense.

Then it is a great mistake constantly to crowd the lesson or the moral of what is taught into the foreground. Even the Sunday-school is no place for what children sometimes contemptuously call "preaching." Religious exercises should be ordered and conducted with reference to spiritual ends, but these ends should not be made obtrusive. Let the exercise carry the lesson or the moral. If the contrary course be taken, one of two things is likely to happen: either the child will fall into insincerity and cant, or he will assume a position of antagonism to all formal spiritual influence. The normal child, as well as the normal adult, rebels when it comes to thrusting a spiritual habit upon him. He fortifies himself against what he deems unwarrantable intrusions into the sanctuary of his mind. Or, as an able writer remarks: "The child protects its inner individuality against effacement through external authority, by taking an attitude of rebellion against stories with an appended moral."

But much more than this should be said. Some people are always ready to take account of spiritual stock, so to speak, and to hand you an inventory of their conceptions, feelings, and experiences. They take a morbid pleasure

in such ethical bookkeeping and advertising. But this is not the worst of it; such persons are wont to assume that others should be like themselves, and they accordingly conclude that reticence on topics of personal religion argues gross spiritual defect. Such habits betray a vulgar mind. Such persons are wanting in self-respect and delicacy of feeling. Children will sometimes invite religious conversation; a certain spiritual openness or frankness may be encouraged, for there is such a thing as an undue concealment of the feelings; but it is important to remember that high-minded men and women maintain a certain reserve in respect to their feelings, and also regard the privacy of others. Still more, continually to peer into the child's mind to see what growth the seed is making, shows lack of faith in the seed itself. It has been likened to pulling up the bean-stalks in the garden to see how they are sprouting. "In the morning sow thy seed, and in the evening withhold not thy hand; for thou knowest not which shall prosper; either this or that, or whether they shall be alike good." It cannot be doubted that many, if not most, so-called "serious" conversations with children are harmful.

Finally, do not fall into the heresy that children should be taught nothing that is beyond their comprehension. Understanding is a thing of degrees. No doubt too little pains was formerly taken to adapt instruction to children; but that is no reason for flying to the opposite extreme, and measuring out every idea and every word according to the child's present capacity. The oft-repeated warning to tell children nothing that they do not understand, is more harmful when applied to spiritual than to secular things. At its core religion is emotion, not intelligence; its method is intuition or faith, not demonstration; and if such emotions as veneration, reverence, and piety are not

to be cultivated until their nature and the causes that produce them are understood, then they will never be cultivated at all. There is much in religion that transcends the farthest reach of thought. Most fortunately, however, influences and experiences that are helpful to the soul are not limited by the scientific understanding. From the sky, the mountain, and the sea; from the social world, history, and literature; from the church, the Bible, and the Divine Spirit itself—spiritual influences will flow into souls little capable of understanding them, if only the opportunity be given. The great passages of the Bible may be read and committed to memory years before they can be logically analyzed. A glimpse of the Divine majesty, a view of the future glory, a touch of the celestial fire, will come to the heart and life of a little child from a lesson that he will never fully comprehend.

XII.

PAYMENT BY RESULTS.¹



HE suggestion that the principle of "payment by results" should be adopted as the best method of solving the question of religious instruction in the public schools of the United States, makes timely a discussion of that feature of the English system of public education.² A brief account of its development is essential.

Previous to 1832 the English government had never done anything for the education of the people. Not one penny had ever been voted by Parliament, or by any local public authority, to pay a school-teacher or to build a schoolhouse. The existing means of education were the few hundred endowed grammar schools scattered over the country; the parish or charity schools, which were the peculiar educational product of the eighteenth century; the schools founded after 1808 and 1811, respectively, by the two educational societies, the British and Foreign School Society and the National Society; and the Sunday schools, which still followed the example set by Raikes, at Gloucester, of teaching the simplest elements of learning as well as religion. For the most part, tuition in the grammar schools was gratuitous; still

¹ *The Educational Review*, September, 1892.

² An address by Archbishop Ireland delivered before the National Educational Association at St. Paul, July, 1890. See the *Proceedings* of the Association for that year, p. 179.

the expense of attendance excluded the lower classes. They were strictly middle-class schools, as they are to-day. Moreover, the majority of these schools had fallen into decay, some because the tide of population had turned away from them, and some because they had been badly managed. Instruction in the charity schools, which was commonly poor, was not only free, but clothing was often provided for the children as well. But these schools were altogether insufficient in number and in equipment. Both the grammar schools and the charity schools were mainly under the control and management of the Established Church. The British and Foreign Society aimed, in its schools, to teach secular studies and the Bible; the National Society, to teach the doctrines of the Established Church and secular studies. There was absolutely nothing answering to public schools as that expression is now understood in most of the well-educated countries of the world.

No one who understands the magnitude of national education need be told that this was a miserable educational provision for such a country as England. Of the whole population, only 1 in 11.25 was at school; whereas in Prussia the ratio was 1 in 6.27; in Holland, 1 in 8.11; and in France, 1 in 9.

In 1832 the government took its first step toward promoting popular education. Parliament voted £20,000 to supplement local enterprise in building school-houses. It was a small beginning; but Parliament repeated the grant for several years, and then it began to increase the sum voted. About the same time that the increase began, Parliament included normal schools and teachers' salaries in the grants. To trace minutely the successive steps that led up to the present system of elementary schools is here impossible and unnecessary, but

a summary of four or five points will assist in understanding the present status.

When a good beginning had once been made, the government rapidly expanded its operations. The grants voted for schools at intervals of five years will make this plain: 1835, £20,000; 1840, £30,000; 1845, £75,000; 1850, £125,000; 1855, £397,000; 1860, £798,000; 1865, £637,000; 1869, £415,000.

At first the grants voted by Parliament were apportioned by the lords of the treasury on the recommendation of the two educational societies. But in time there began to develop, in the characteristic English manner, a department of education. In 1839 the Privy Council passed an order constituting four persons named "a committee to superintend the application of any sums voted by Parliament for the purpose of promoting public education." The committee that had at first to administer but £30,000 a year, gradually grew into a great department of State, dealing with an annual grant from the exchequer of nearly £2,000,000, and exercising a very wide and important discretion. Finally, Parliament passed an act creating a vice-president of the council, and making him the head of the committee on education; but with this exception, the whole mechanism of administration stood simply upon usage. The secretary of this committee, however, was and is its real head.

The department established an inspectorship. At first this extended only to the buildings that the government helped to build; but when grants came to be made for schools also, the inspection was extended to the secular teaching, leaving religious instruction wholly to the local managers. This inspectorship was to see that the government got the value of its money.

The first rules of administration adopted by the lords of the treasury, and afterward by the committee on education, were called "minutes." But as these minutes multiplied, they were finally gathered into a document called "Code of Regulations by the Lords of the Committee of Privy Council on Education;" or simply "The Code." Pursuant to the ninety-seventh section of the act of 1870, the department annually lays the code, revised from time to time, on the table of the Houses of Parliament. If it is not amended by the Houses, or rejected by either of them, within thirty days, it goes into effect. The code in operation at any time contains the conditions that public elementary schools and training colleges for teachers must comply with, in order to obtain an annual grant from the treasury in aid of their maintenance.

It was in the Revised Code of 1861 that the principle of payments by results first appeared. Mr. Robert Lowe, afterwards Lord Sherbrooke, was then the head of the educational committee. The annual grant by Parliament had grown to more than three-quarters of a million sterling. The government, under the peculiar system, had no assurance that it was expending its money wisely. Repeated investigation, on the other hand, proved very clearly that much of it was little better than thrown away. Hitherto the government had made its payments to teachers personally, according to a prescribed schedule. Many of them were worse than incompetent. To remedy these evils, it was proposed to make payments to the managers rather than to the teachers, and to graduate them to the results of individual examination of pupils, or to withhold them altogether. More definitely, the new propositions were these: "The school must be held in approved premises, and must be under the charge of a

certificated teacher;" "The children must have made a certain number of attendances;" "They must pass an individual examination in reading, writing, and arithmetic, and according to results in each individual case a grant was to be made." This last clause contains the principle of payment by results that is now brought forward as a solution of one of our difficult educational problems. Mr. Lowe took the idea from the recommendations of the Duke of Newcastle's Commission, which had investigated the state of public education in the years 1858-1860. Mr. Lowe said the government must have proof that the teachers were doing their duty; class examinations were not adequate; such expressions as "general efficiency" and "moral atmosphere" in the reports of inspectors were "impalpable essences." Nothing would do but individual examinations. Mr. Lowe declared: "If the new system is costly, it shall at least be efficient; if it is inefficient, it shall be cheap." Hence, payment by results was merely a mode of guarding the treasury. An American might think that the proper precaution for the government to have taken would have been to look after the examination, selection, and supervision of the teachers. But this the character of the system that had grown up prevented. The government did not examine, employ, or supervise the teachers. There were no school officers other than the committee at Whitehall and the inspectors and clerks whom it appointed. There were thousands of government-assisted schools, but there was not in England one State school, as we understand that expression. The government had formed a great number of educational partnerships with local managers scattered over the kingdom, furnishing a part of the money, and a general inspection to see that it received its money's worth. The local managers provided the re-

mainder of the money and local management. Fees were generally charged; and there was not, in our sense, a free school in England.

Dissatisfaction with this system grew quite as rapidly as the system itself. But it took very different directions. The Established Church was well satisfied in the main, because the system attended to its aggrandizement. The Dissenters generally were displeased; and many of them, because they saw the existing system contributing to the upbuilding of the Establishment, took the position, in which they were supported by a considerable number of *doctrinaires*, that the State should not meddle with education, but leave it to voluntary enterprise. Then there sprang up the Secularists, who stood on a platform adopted at Birmingham in 1847: "To promote the establishment by law in England and Wales of a system of free schools, which, supported by local rates and managed by a local committee specially elected for that purpose by the rate-payers, shall inspect secular instruction, only leaving to parents, guardians, and religious teachers the instruction of religion; to afford opportunities for which it is proposed that the school shall be closed at stated hours each week."

But in the midst of the confusion there was a growing conviction that the State must go farther and do more. Popular education entered into politics. In 1867 the Queen, in the speech from the throne, commended the subject to the attention of Parliament, and in 1869 Mr. Gladstone came into power, with an immense majority in the House of Commons at his back, pledged to new measures. One of the great achievements of his ministry was the Elementary Education Act of 1870, often called the "Forster Act," from the fact that it was carried

through the Commons by Rt. Hon. W. E. Forster, the Vice-President of the Council and head of the educational department. This act, and two supplementary ones, the Sandon Act of 1876, and the Mundella Act of 1880, are the basis of the elementary educational system of England and Wales as it exists to-day.

The Forster Act was a great disappointment to those who desired the establishment of a State system of schools, pure and simple, leaving private schools and parochial schools to find their own place. It changed the existing edifice somewhat, put on a large addition, and laid a new foundation under the whole structure. In explaining the bill, Mr. Forster said the government "must cover the country with good schools, and get the parents to send their children to those schools." This one sentence from his speech well characterizes the measure: "Our object is to complete the present voluntary system, to fill up gaps, sparing the public money where it can be done without, procuring as much as possible the assistance of the parents, and welcoming, as much as we rightly can, the coöperation and aid of those benevolent men who desire to assist their neighbors." The most radical feature of the new act was this: it divided the kingdom into school districts; ascertained in what districts additional school facilities were needed, and to what extent; created local school boards, empowered and required to vote local rates for the maintenance of schools, where they were needed, to be carried on under their management, these new board schools being intended to fill the gaps in the existing system.

The Act of 1870 defined an elementary school as "a school or department of a school at which elementary education is the principal part of the education there given, and does not include any school or department of

a school at which the ordinary payments in respect of the instruction from each scholar exceed ninepence a week.” The definition of a public elementary school is much more elaborate, viz.:—

Every elementary school which is conducted in accordance with the following regulations shall be a public elementary school within the meaning of this act; and every public elementary school shall be conducted in accordance with the following regulations (a copy of which regulations shall be conspicuously put up in every such school), namely:

(1) It shall not be required, as a condition of any child being admitted into, or continuing in the school, that he shall attend, or abstain from attending, any Sunday-school or any place of religious worship, or that he shall attend any religious observance, or any instruction in religious subjects in the school or elsewhere, from which observance or instruction he may be withdrawn by his parent, or that he shall, if withdrawn by his parent, attend the school on any day exclusively set apart for religious observance by the religious body to which his parent belongs.

(2) The time or times during which any religious observance is practised, or instruction in religious subjects is given at any meeting of the school, shall be either at the beginning or at the end, or at the beginning and the end of such meeting, and shall be inserted in a time-table to be approved by the Education Department, and to be kept permanently and conspicuously affixed in every schoolroom, and any scholar may be withdrawn by his parent from such observance or instruction without forfeiting any of the other benefits of the school.

(3) The school shall be open at all times to the inspection of any of Her Majesty’s Inspectors, so, however, that it shall be no part of the duties of such Inspector to inquire into any instruction in religious subjects given at such school, or to examine any scholar therein in religious knowledge, or in any religious subject or book.

(4) The school shall be conducted in accordance with the conditions required to be fulfilled by an elementary school in order to obtain an annual parliamentary grant.

It will be seen that a public elementary school in England is something very different from such a school in the

United States. It may be a board school or a voluntary school; and if a voluntary school, it may be a Church school, a Catholic school, a Congregational school, or a Jewish school. Board schools derive their income from the parliamentary grants, the local rates, fees or "children's pence," and voluntary contributions. Voluntary public schools have the same sources of income, except the rates. The conditions to be fulfilled by schools in order to obtain an annual grant, in addition to those prescribed in the law itself, are laid down in the code. Some of the principal conditions found in the code of March, 1890, that went into operation September 1 of that year, are the following:

The school must be conducted as a public elementary school; no child must be refused admittance on other than reasonable grounds; the time-table, and also the fees charged by a board school, must be approved by the department; the school must not be unnecessary, nor be conducted for private profit, nor be farmed out to the teachers; the principal teacher must be certificated; a day school must have been in session not less than 400 half-days in the year; the school premises must be healthy, and the school be efficient; the managers must make the required reports, and publish annually accounts of their income and expenditure; and the income must be applied only for the purposes of public elementary education.

The annual grants made to schools complying with these conditions consist of several items that are determined by a set of very technical rules. Unless otherwise ordered, the grant is made for each "unit of average attendance"; or, as we should say, the average daily attendance of a pupil for the year. Omitting qualifications, the grant for an infant school, comprising children of from three to seven years of age, is made up as follows:

(1) A fixed grant of 9s. or 7s.; (2) a variable grant of 2s., 4s. or 6s.; (3) a grant of 1s. for needlework; (4) a singing grant of 1s., if the singing is *by note*, or of 6d. if *by ear*. That is, a "unit of average attendance" may "earn" (as it is called) 17s. for this school, while forty such units may earn forty times that sum.

The grants to a school for older scholars are much more complicated. There is (1) a principal grant of 12s. 6d. or 14s.; (2) a fixed grant for discipline and organization of 1s. or 1s. 6d.; (3) a grant for needlework of 1s. (for girls only); (4) a grant for singing of 1s. or 6d; (5) a grant for examination in class subjects of 1s. or 2s.; (6) a grant on examination of individual scholars in specific subjects of 4s.; (7) a grant (for girls) for cooking; and (8) a grant (for girls also) for laundry work. Class subjects are English, geography, elementary science, history, and needlework for girls. The specific subjects are algebra, geometry, mechanics, chemistry, physics, physiology, botany, principles of agriculture, Latin, French, domestic economy, Welsh (in Wales), German, bookkeeping, and shorthand.

Then there are special grants for day schools in respect of pupil teachers and of assistant teachers employed for schools so situated that they are put to unusual expense, and for evening schools. Training colleges for teachers are also provided for. The total annual grant to any school, exclusive of special grants, shall not exceed either 17s. 6d. for each unit of school attendance, or the total income of the school from all other sources than the grant. It may be asked why the grant varies, consisting of so many different items. The answer is easy. It was found necessary to break up the monotony developed under the Revised Code of 1861, when the aim of school managers was to crowd as many pupils as possible through three or

four elementary studies, because in that way they would earn most money.

Such, in outline, is the origin and nature of the rule of payment by results. Mr. Matthew Arnold once characterized it in this way:

To a clever Minister and an austere Secretary, to the House of Commons and the newspapers, the scheme of "payment by results," and those results reading, writing, and arithmetic, "the most necessary part of what children come to school to learn"—a scheme which should make public education "if not efficient, cheap, and if not cheap, efficient"—was, of course, attractive. It was intelligible, plausible, likely to be carried, likely to be maintainable after it had been carried. That, by concentrating the teacher's attention upon enabling his scholars to pass in the three elementary matters, it must injure the teaching, narrow it, and make it mechanical, was an educator's objection easily brushed aside by our public men.¹

This scheme was adopted in the face of the remonstrance of the highest educational authorities of the country. It was the device of a man who looked at education from the standpoint of the treasury, and not the standpoint of the schoolhouse. It has never been adopted on the Continent; and Mr. Arnold attributes much of the inferiority of the English schools to its harmful influence. It was a make-shift when adopted, and a confession on its face that England had no system of State schools. It corrected the particular evils that troubled Mr. Lowe, as is shown by the large falling-off in the grants from 1860 to 1869; but it engendered other evils that a high authority has thus summarized:

(a) It has organized a system of cram, under which "results," measured by the standard examinations as opposed to "methods," have received undue recognition and reward. (b) All scholars,

¹ *The Reign of Queen Victoria*. Edited by T. H. Ward. Vol. II., p. 261.

whether clever or dullards, progress at the same rate—one standard per annum; and at the same rate in all subjects simultaneously. (c) The degree of success, with neglect, incapacity, and the bad influences of home surroundings, meets with little recognition as compared with the success in “passing” a high percentage of scholars. (d) The profession of the teacher is degraded by persistent and obtrusive appeals to the desire of gain. In the absence of monetary inducements, teachers are tempted to neglect scholars who are not likely to earn good grants. (e) Little encouragement is given to teachers to forward the higher moral and intellectual training of their scholars, as opposed to the mere acquisition of mechanical facilities in the subjects of examination. (f) Scholars trained under this system, and subsequently passing on to secondary schools, are characterized by a lack of mental alertness, and frequently disappoint their early promise.¹

For many years the most intelligent friends of education in England have been struggling to rid the schools of this system. The Education Department itself has labored to mitigate its evils; in the last code, for instance, it threw individual examinations for grants out of the infant schools altogether, and otherwise limited their operations. But all efforts to throw off the incubus have hitherto proved unavailing. It was adopted in the interest of the treasury, rather than of the schoolhouse; and it is felt in influential quarters that the need still exists, in view of the mixed character of the public school system. The department could easily manage the board schools, but there have grown up since 1832 thousands of voluntary schools that are fed from the treasury by this principle as a feeding-pipe. There has been since 1840 a veritable concordat existing between the State and the Church schools, and this the State does not see its way to break up. What the future may be, it is hard to predict; but for the time sectarianism is the pledge of the system of payment by results in the schools of England.

¹ Sonnenschein's *Cyclopædia of Education: Payment by Results.*

To adopt this system in the United States would be the height of folly. There would arise systems of schools within a system. There would be the board public schools, the Catholic public schools, the Lutheran public schools, and so on. As a consequence, children and teachers would be segregated according to their religious affiliations; points of friction would be multiplied; irritation and jealousy would increase, and the public school system, in the best of all senses, would cease to exist.

Not very long ago the older portions of the United States were supplied with schools of a very heterogeneous character. In most States there were the State schools, not well organized and nowhere free. In all the States there were private schools and denominational schools of various kinds. Among these schools the children were distributed with large reference to social rank, condition, and religious connections. Narrowness and selfishness were the result. It is the glory of the public-school system, as it now exists, to have swept this order of things away. Thousands of private schools and denominational schools have disappeared. Save the large number of children in the Catholic parochial schools, and the relatively small number found in the parochial schools of other churches and in private schools, the children of the State have been brought together in one system of schools, erected and supported by the State. With all their faults, the intellectual, moral, social, and political interests of the country have been greatly promoted by these schools. To build up this system has cost a vast amount of labor, thought, and money. It has been opposed at every step by the champions of special educational views and of narrow interests. It is *one* system, and *one* it is likely to remain. In England, where social distinctions are old and firmly rooted; where the Established

Church is all powerful; where the strife between the Establishment and Nonconformity is bitter, payment by results may be temporarily useful in aiding the people to reach a unified system of State schools. In the United States there is little reason to fear that it will be allowed first to disintegrate and finally to destroy the noble system that now exists.

NOTE.—Some important educational history has been made in England since this paper was written, and in part since it was published. Payment by results has been almost wholly abandoned. Moreover, Parliament passed an act in 1891 that materially changed the financial support of schools. The full text of this act may be found in *The Educational Review*. Vol. II., p. 303, *et seq.*

XIII.

THE BUSINESS SIDE OF CITY SCHOOL SYSTEMS.¹

THE school system of a republican state is not only *for* the people, but *of* the people, and *by* the people. It will therefore reflect the popular intelligence, virtue, and spirit. It may indeed be better or worse than its creators, but only for a limited time. The schools of any community or state, in the long run, will not rise far above or fall far below the civilization around them. Owing to a happy conjunction of circumstances, they may pass beyond the range of public appreciation and sympathy; but if so, they will either fall back to the people, or halt until the people overtake them. Owing to unfavorable influences, the schools may fall into the rear of the column, and fail to express the average culture and life; but if so, the public will in time find it out, and will compel them to quicken their pace. Guizot holds that civilization consists of two principal facts—the progress of society and the progress of the individual; and he says: “The two events are so intimately connected that, if they are not produced simultaneously, sooner or later one uniformly produces the other.”² Herbert Spencer hints a similar philosophy in his celebrated remark, with which *as a fact* we have nothing to do, that we Americans got our form of government by a happy acci-

¹ Report of the Committee on City Schools to the National Council of Education. San Francisco, Cal., July, 1888.

² *History of Civilization*, Lect. I.

dent, not by normal progress; and that we shall have to go backward before we can go forward.¹ In the long run, a progressive society moves as a unit and not in sections; and between the public schools and the public there will always be intimate reciprocal relations. One of the many deductions to be drawn from this truth is, that we cannot *give* any people a useful system of schools: such schools must grow up on the soil, and be an expression of the popular life.

The relations of the people to the public schools in an American state may be thus analyzed:—

First, they delegate to the legislature, in the State constitution, power to constitute and sustain a system of schools.

Secondly, the legislature creates such a system, delegating to local authorities, variously called the schoolboard, the school-committee, etc., power to organize and carry on schools in their respective localities.

Thirdly, the board, in the discharge of its legal duties, delegates to teachers the functions of teaching and discipline, subject to the law and the board's supervision.

Fourthly, the people elect, at frequently recurring periods, the members of the legislature, and commonly of the board itself; while within these periods they exert, or may exert, a strong influence over legislature, board, and teachers alike. As respects the last, this influence is so strong that it may be doubted whether any corps of teachers in the country could resist an energetic expression of public opinion on any matter that it can change for ten consecutive days. Thus the popular power returns to itself, constituting a circle. In fact, there is no other American institution that, taking everything together, is so democratic as the public school.

¹ *Herbert Spencer on the Americans.*

It will be seen that a system of public schools, in operation, presents four phases to our view: the work of the legislature, the work of the board, the work of the teachers, and the work of the public. This report will partially traverse all these divisions, but will deal mainly with the board.

Between the schools of a city considered as an organization of business and as an organization of instruction, there is a strong reciprocal influence. The two cannot be permanently separated in character more than the schools can be separated from the civilization in the midst of which they exist. The board formally enacts courses of study, chooses text-books, and elects teachers, as well as builds buildings; it establishes formal rules of discipline and has the power, which it often exercises, to set up standards of examination; and, by its manner of doing business, the culture, tone, and bearing, etc., of its members, greatly influences teachers, giving them courage or otherwise, and also affects the morale of the schools and public opinion. So strongly was the late Dr. Philbrick impressed by these facts that he passed by the Prussian maxim, "As is the teacher, so is the school," and the Dutch maxim, "As your inspection is, so is the school," to formulate the maxim, "As is your school board, so are your schools."¹ At the same time teachers are an educational force of unquestionable strength over and above what they do in schoolrooms. If able and devoted, they slowly raise the standard of intelligence; they act directly upon public opinion, and, through that, are felt in the election of members and in the counsels of the board; while they act upon that body directly through their expert knowledge and moral force.

¹ *City School Systems in the United States*, p. 14.

It does not follow from this reasoning that the business and educational sides of a system of schools, will, at any given time, be equally well developed. Far from it. At the present time, for example, the schools as organizations of instruction are better than the schools as organizations of business; that is, the teachers, open as they may be to criticism, are still somewhat in advance of average public sentiment and of average board administration. The pressing need of the hour is, for the people and the board to overtake the teachers. Still, such a state of things as this cannot last long; good schools, a bad schoolboard, and an indifferent or ignorant public opinion will not long exist side by side in the same city; the board and the public will rise to the level of the schools, or the schools will fall to the level of the board and the public.

Perhaps two or three further remarks touching the relations of teachers and the board may be permitted.

Instruction is so purely a professional matter that the board is commonly disposed to allow teachers to make the course of study, to set the standard of examinations, and to invent methods of instruction; but it accords them no power, and but limited influence, in the selection of text-books and in fixing the qualifications of teachers, not to mention matters of a purely business nature, as finance, construction, and the like. So far as merely business matters are concerned, some boards are sensitive even to suggestions from teachers. "Stick to your last!" is the sentiment that burns in the breast of many a board-member. In fact, there is reason to think that, owing to the division of labor, and perhaps to other causes, the administrative and teaching functions of the schools are becoming more widely separated than formerly. In some places board-members appear to take less interest in the

schools as places of teaching, leaving them more and more to the teachers, while they more and more magnify their own peculiar office. It is always difficult to prove propositions relating to the slow drift of opinion or of social change; but it is at least questionable whether in some States the influence of teachers in school legislation is equal to what it was thirty years ago. At least, the teachers of whole States have called upon the legislature again and again for legislation of the value of which they are not only the best, but almost the only competent judges; and only to see their call fall at the feet of legislators powerless and dead. More than formerly, educational meetings are gatherings of teachers; fewer outsiders appear on the programmes; and the subjects discussed are more professional and less administrative or popular. Perhaps this closer specialization of functions is attended by some advantages; it certainly is by some disadvantages.

However they may differ as to these general views, practical school men will generally, if not universally, agree that the constitution and powers of the schoolboard, the mode of selecting its members, and its methods of doing business are all live school questions. They will be briefly discussed in order.

I. The Constitution and Powers of the Board.—The constitution and powers of the board, which is necessarily the creature of State law, must depend in a measure on the local political institutions of the State. Manifestly, the town system of New England, the county system of the South, and the compromise system of the Middle States and the West will materially influence the school legislation of these groups of States. In fact, we have no difficulty in dividing our State school laws and systems

into three classes corresponding to these three groups of local institutions. In New England the local school authorities are either town officers or district officers, or both; in the South they are mainly county and district officers; while in the vast region covered by the compromise system, town and county officers, and often district officers, unite in administering the schools. It is therefore impossible to create a model school system, or even school-board, that would answer for all parts of the country. A county superintendent would be an anomaly in New England, where the county is a judicial but hardly a political division;¹ a town meeting would be an anomaly in the South, where the town in a political sense does not exist; while in the West both town elements and county elements are mingled in all the school systems. These facts of local institutional life will differentiate our school laws and our school systems as long as they continue to exist. Men will not be apt to use the county or the town for school purposes unless they also use it for political purposes.

To a great extent, however, city schools must be excepted from the foregoing generalization. Generally speaking, such schools exist under special charters or laws, or the general school laws of the State are supplemented by special provisions. Thus, the laws of Ohio contain numerous provisions relating to city districts of the first grade of the first class, of the second grade of the first class, etc. As a consequence of this partial withdrawal of the city schools from the larger systems, and of the prevalence in American cities of similar conditions, the city schools are much more homogeneous as respects both the organization of business and the organization of instruc-

¹ The county superintendency has been introduced into Vermont.

tion than the country and village schools. Moreover, the conditions existing in cities are such that this segregation of the schools is a necessity. For example, the schools of a city cannot be made, or be kept, subject to the county supervision; nor can the board be compelled to wait on the motions of a township board. There must be a local authority coextensive with the jurisdiction, legally capable of taking the initiative. So very strong is this tendency that even small villages struggle for and obtain school autonomy.

But the question of city autonomy disposed of, a more difficult question remains, viz.: What shall be the relation of the local board to the municipal government? Shall it be independent, or shall it be subordinate? And if subordinate, to what extent? In New England, where the town meeting in its sovereign capacity passes on all fundamental questions of local government, including the schools, this cannot be a very important question; but in places where the local government is representative, and not democratic, it is of much importance. The cities of the country present the widest contrasts in this respect. In some, the school board is as completely independent of the city council and all other municipal authorities as though the two did not belong to the same municipality; while in others, nothing done by the board is done finally until the council has ratified it. Both of these are extreme plans. However, this question will not be discussed here, except to say that the arguments in favor of keeping the financial affairs of the city unified are, from the side of municipal administration, absolutely conclusive; and that there is no more reason for giving the educational department autonomy than for giving it to the parks, the streets, or the fire department. Education is a civil affair, but not an autonomous affair. Of course, it does

not follow that it would always be wise to reorganize an autonomous board.

The powers of the board, from the very nature of the case, must be partly legislative, as in the adoption of studies, books, and rules; partly executive, as in the election of teachers; and partly judicial, as in handling cases of discipline. The proper size of a city board is a question that cannot be answered off-hand. Something would depend on the size of the city and the traditions of the people; and much more on the manner in which the board organizes its business. Both of these points will be touched again in connection with that topic.

II. The Selection of Board-Members.—The problem of securing competent schoolboards in cities remains unsolved. Its importance and difficulty so impressed Dr. Philbrick that he wrote: "Without doubt, this is the supreme educational problem which remains for our educational statesmanship to grapple with."¹ There are two general modes of selecting board-members, each of which presents several species.

First, popular election. Here the species are: (1) Election by ward or district ticket of members to represent the ward; (2) election by city ticket of members to represent the city; (3) the combination of the two foregoing plans—thus constituting a board composed of local members and of members-at-large. As respects these three plans, what is best administered is best; and no wise educator would recommend that any one of them that is now working satisfactorily in any city should be dropped for either of the others. They are all in harmony with the prevalent political and social temper of American society; and there is no one of them that may not, under favorable condi-

¹ *City School System in the United States*, p. 16.

tions, produce satisfactory results. Moreover, if a board were now first to be constituted in a rising city, a practical educator, if consulted, might find it hard to choose among them.

In cities where the ward-ticket plan has led to gross abuses, it is common for citizens to look with favor on the general-ticket plan. Nor can it be denied that this plan is supported by some plausible arguments. It is said that the small men who work into the board from the wards never could be elected on a city ticket; that only men of some intellectual and moral qualifications could secure the party nominations; or that, if they did, they could not secure the requisite votes to elect them; that ward issues, ward "slates," and ward men, would give way to educational men;—in a word, that men could no longer be elected to manage the public schools simply because they favored opening the saloons on Sunday or for some similar reason.

It may be doubted whether this reasoning is not more specious than solid. The party candidates would be nominated by the city caucus; the nominations would go to the foot of the list, and so be made after the chief municipal officers had been designated; the caucus would have spent its strength and interest in these other nominations; and we may well question whether the opportunity for improper men to secure the nominations would not be as good as now, if not better. Nor is it probable that citizens would be more independant of party when it came to voting than they now are. In some cities the board would consist wholly of members of one party. These are theoretical arguments; but to some degree at least they have been confirmed by experience. A cultivated gentleman, who was at the time president of a city schoolboard, after listening courteously to the argument

for the general-ticket plan, said, smiling, "It doesn't work so in ——" (naming his own city). It is true that these objections would be partially overcome if the election were made a special one; but in that case new difficulties might arise. At all events, this plan will hardly furnish the looked-for means of escape from existing evils. The complexity of the combination plan is no doubt an objection to that.

Secondly, appointment. Four varieties of this method are found in operation: Appointment (1) by the city council; (2) by the judges of the courts; (3) by the mayor; (4) by the mayor by and with the consent of the council. Although the first of these plans may work well in some instances, it cannot, for obvious reasons, be generally recommended; but there are no *a priori* reasons why any one of the others should not produce satisfactory results. The argument in favor of an appointive board will be briefly sketched.

The grand cause of bad schoolboards in cities is the same as the grand cause of bad city administration generally, viz.: the triumph of politics over business methods. How complete that triumph is in many cities, all men know who are even casually acquainted with current municipal affairs. In fact, one of the pressing political questions is the thorough reform of municipal government. There is no reason to think that in this respect the schools have suffered more or less than other departments of city government. It is to be observed, however, that the real nature of the evils that politics inflicts upon the school, or even upon city administration as a whole, is not always understood. No doubt partisan politics—Republican and Democratic politics—has much to answer for; but *school* politics—the application of the politician's methods to school questions—does far more harm.

Those men who have studied municipal questions most thoroughly are convinced that there is no ultimate means of escape from existing evils but by reducing the number of elections and elective officers, by limiting the power of the municipal legislature, and by materially increasing the power and responsibility of the chief municipal executive. The city of Philadelphia has already been thoroughly reorganized on what is called "the Federal Plan"; and the city of Cleveland has sent a monster petition of its business and professional men to the State legislature, praying for a similar reorganization.¹ The solution of city-school administration must be sought in the same quarter.

The mayor of the city, or the judges, would be able to appoint a better school board than the people at large are able to elect. The abstract proposition that the people have abundant intelligence and virtue to name a board, although true, is nothing to the purpose. The concrete question, What are citizens doing, and likely to do, under the conditions actually existing in the cities, ridden and handicapped as they are by the politicians? is the one to be considered. Furthermore, the mayor, if he failed to use his power, could be and would be held to a strict accountability. And the same of the judges. No doubt it will be objected that these officers, and particularly the mayor, would abuse the power; but cities can be named that never had a mayor who would dare to appoint such a board as the people habitually elect, save when aroused to spasmodic action by an accumulation of abuses. The mayor is one man, and an officer who can be arraigned at the bar of public opinion; while the *demos* is not responsible, since experience proves the futility of calling any power to account at its own bar.

¹ Such reorganization has been since accomplished, including the schools.

There can be little, if any, doubt that the public would exercise far more control over the schools by the appointive plan than it does or can exercise by the elective plan. It can compel the mayor to do what it cannot do itself. Guizot has shown that public opinion is sometimes far more efficacious than legal institutions. "It is very natural," he says, "that men should wish their intelligence to be prompt and apparent; that they should covet the credit of promoting success, of establishing power, of producing triumph. But this is not always either possible or useful. There are times and situations when the indirect, unperceived influence is more beneficial, more practicable."¹ The present case is one of those in which influence will prove greater than power.

With the change in the mode of appointment should also come a lengthening of the term of service. Now the legal term is commonly short, and changes of one kind and another tend to make the actual time still shorter. In the schoolboard of a certain city of a quarter of million people, sixty different men *might* have sat from 1882 to 1886, and fifty-one men *did* actually sit. The eighty-six years of aggregate service divided by the aggregate number of members gives an average period of one year and a half. Words can hardly tell the ignorance, incapacity, and friction that such a system introduces into the school administration.

III. *Mode of Board Administration.*—The board must be clothed by the law with legislative, executive, and judicial powers and duties. One of the first things that it should do, however, is immediately to divest itself of most of its executive and judicial duties, and to confine itself mainly to legislation. The reasons why a

¹*History of Civilization*, Lect. VI.

board is a bad executive body are obvious, and do not call for formal statement. But it is important to point out how its executive duties should be discharged.

Acting as a legislature, the board should establish three executive departments, defining their powers and duties.

The Department of Finance, Accounts, and Records.

The Department of Construction, Repairs, and Supplies.

The Department of Instruction and Discipline.

The heads of the departments might be called the Auditor, the Superintendent of Construction, and the Superintendent of the Schools. Nothing will be said here of their qualifications further than that they should be men of decided ability and character, having each an expert knowledge of the important duties committed to their charge.

These departments should be as permanent and efficient, relatively, as the executive departments of the State or National government; perhaps it would be wise to have them provided for in the school law itself; certainly they should be put high beyond the reach of hasty board action. It is not necessary in this report to catalogue the duties that would fall to them respectively; but it is necessary to insist that they should be the sole channels of executive administration, within their several limits. Judicial functions, so far as employés are concerned, should be delegated to the heads of these departments, reserving the right of appeal to the board, duly limited.

School administration in cities is still organized essentially as it was when the cities were villages. While this organization answered the villages well enough, it is now far outgrown. To be sure, semblances of executive departments are found in these organizations, but they are

embryonic and feeble. To a very great extent boards intrust administration to committees of their own number. This is not quite so absurd as it would be for a State legislature to attempt to carry on the whole State administration by means of standing committees, but the absurdity is of the same sort.

Confining itself mainly to legislation, the board should do business like a legislature. It should appoint a few standing committees, say on finance, on teachers and salaries, on course of study and text-books, on construction, on judiciary, and perhaps two or three more. Details can be readily settled when the main ideas have been agreed upon. At the same time, it will be well to indicate the method of procedure.

For example, the Committee on Teachers and Salaries would, at the proper time, report the number of teachers needed the ensuing year, a schedule of salaries, and the amount of money required to pay them. After being printed, discussed, and amended, if necessary, the board would pass the bill, and the money voted would then be duly entered on the Auditor's books as subject to draft for this purpose. Similarly, the Committee on Construction would report on repairs, on new buildings, or on supplies, and the procedure would be the same as before.

By this plan the legislative work of the schools, as well as the executive work, would be far better done than now. At present the board spends a great deal of time in trifling acts of legislation. For the schoolboard of a great city to legislatate, in terms, on the purchase of a few feet of hose-pipe, or of a lawn-mower, is no less and no more absurd than it is to have twenty-five or thirty standing committees, many of them charged with executive functions, simply in order that as many men may have the petty chairmanships.

Not only would this plan of organization secure far better results than are now secured, but it would save much time and annoyance. A meeting a month, on the average, would be all-sufficient. Again, this plan would render a board of considerable size not only unobjectionable but desirable; whereas a board that holds the major executive duties in its own hands must be small to be efficient; it is hardly an exaggeration to say, the smaller the better.

The plan would give to the office of Superintendent of Schools that strength and dignity which its efficiency demands. As a matter of course, the superintendent would be clothed, either directly or indirectly, with power over the course of study, instruction, and discipline. The new Cincinnati rule should be incorporated in the organization of the board, viz.: The superintendent of the public schools shall appoint all the teachers of said schools, by and with the consent of the board of education, and the superintendent or board may remove for cause. Possibly some would think it wise to go as far as the bill drawn up for the better government of the city of Cleveland, submitted to the Ohio legislature at its last session, which did not pass, "The superintendent of schools shall have power to select his assistants, appoint all teachers, prescribe courses of study, and select text-books." Moreover, this bill abolished the board of education altogether, and gave the schools, as well as all other parts of the city government, a highly centralized organization.

It is not pretended for a moment that the plan of appointment and administration now sketched out rather than fully elaborated, if embodied in law, would relieve all the evils of the public schools. Nothing of the kind. But it is contended that they would lead to substantial reforms; better men, better methods, and better administration.

would be secured. No doubt the objection would be made that the plan is undemocratic. But the charge would be untrue. The scheme proposed contains nothing that may not somewhere now be found in actual operation, save only the full development of the executive departments, and the practical limitation of the board to legislation. The board, of course, would choose the executive officers. Behind the whole organization would stand the public, as now, having less immediate power, but far more ultimate influence. The scheme is submitted to the Council in the belief that, in its essential features, it is the best one attainable in the present state of our civilization. It is certainly in harmony with the best current thinking concerning city government in the United States. Nor is argument needed to show that it would give courage to teachers, and that it would call abler men than now into the school service, as board-members, instructors, and supervisors.

NOTE.—I have somewhat changed my views on one or more minor points made in the foregoing report, but am more than ever convinced that the main argument is sound. Since 1888 the subject has occupied increasing attention. A few references may be given.

White, Dr. E. E.: *Report of the Committee on City School Systems*, made to the *National Council of Education* at St. Paul, July, 1890. *The Proceedings of the Council*, and of *The National Educational Association* for that year.

Draper, President A. S.: *Plans of Organization for School Purposes in Large Cities*. A paper read at the meeting of the Department of Supervision at Boston. *Proceedings of the National Educational Association* for 1894.

The same: *On the Organization of City School Systems*. Third division of the Report of the Committee of Fifteen. *Educational Review*, March, 1895.

Mowry, W. A.: *Powers and Duties of School Superintendents*. *Educational Review*, January, 1895.

See also *Hand-Book of the Board of Education of the City of Cleveland, 1895, 1896*, for the Reorganization Act of that city, 1892.

XIV.

THE AMERICAN SCHOOL SUPERINTENDENT.¹

HE American superintendent of schools, or of public instruction as he is sometimes called, is an officer *sui generis*. He is native to the soil. Perhaps his nearest congener is the inspector of schools found in England and France, Holland and Germany. But the duties of the superintendent and of the inspector are very different. He is, moreover, a recent evolution even in this country. The first city to appoint a superintendent that history mentions was Providence, R. I., in 1839.² Several towns in Ohio appointed superintendents in 1848; Boston and New York did so in 1851; Cleveland in 1853, and Philadelphia not until 1883. How many such officers there are now in the United States no one can tell, but certainly many thousand. Not alone the great cities with their hundreds of teachers and tens of thousands of pupils, but even villages with a half-dozen teachers and two or three hundred pupils have them. Some effort has been made to distinguish the superintendents of the small towns by the older title of principal, but it has not been very successful. Still further, the superintendents of the country are as influential as they are numerous. They have organized sections or departments of the educational associations, as well as associations of their own, for the discussion of the topics that most concern them as school officers, with a view to

¹ *The Educational Review.* January, 1894.

² Editor's preface to Dr. Pickard's *School Supervision*.

self-improvement and the formation of public opinion. They have their special classes in summer schools. Lectures on superintendence are given in normal schools, and in colleges offering pedagogical instruction. Far beyond any other class of persons of equal numbers, the superintendents directly shape the schools and public education. And this, too, without taking into account the State superintendents who, while they are only dwarfs compared with the European ministers of education, sometimes possess considerable power and still oftener wield large influence. Says Dr. W. T. Harris: "Before 1837 Connecticut surpassed the other States in the education of its people. But the mighty engine of supervision wielded by a Horace Mann immediately turned the scale in favor of Massachusetts."¹ Still, notwithstanding the superintendency is now some fifty years old, and has attained such importance, its permanent character is by no means determined. On the contrary it is yet plastic; possibly it is even more plastic now than it was some years ago. Certainly the most thoughtful students of educational science are not clear as to what the future superintendent will be, and perhaps not clear as to what he ought to be. The time is therefore an opportune one to discuss the subject, not dogmatically but tentatively, with a view to casting light along the future track of opinion and practice. To do this we must first trace out the development of the office as shown in our educational history. This can be done all the more readily because all the steps, unlike some other evolutions, are open to the eye of daily observation in every State of the Union.

Sec. 21, Chap. XLIV, of the School Laws of Massachusetts declares: "Every town shall, at its annual meeting,

¹ Editor's preface to *School Supervision*, by Dr. J. L. Pickard.

or at a meeting appointed and notified by the selectmen for the purpose and held in the same month in which the annual meeting occurs, choose by written ballots a school committee, which shall have the general charge and superintendence of all the public schools in the town." Many other powers are given to this committee, as to contract with teachers, choose text-books, establish courses of study, dispense discipline, and examine teachers; but the emphatic point now is that it has general charge and superintendence of all the public schools in its jurisdiction. This provision is not peculiar to Massachusetts; it is found in substance in State school laws generally, and is plainly necessary if the committees and the schools are to be efficient. This power to supervise the school or schools, lodged by law in the town committee or the district board, is the primal cell from which the school superintendency has been evolved. We are now to follow the steps by which it has been produced. First, however, it is important to observe that in the majority of towns and districts the country over this primitive state of things still exists. Perhaps one-half the schools are still supervised, so far as they are supervised at all, by committees or boards. These schools and boards we may dismiss at once, because they do not concern our special subject.

It is probable that board supervision of schools fifty or sixty years ago was about what it is to-day. Sometimes it was better and sometimes worse, as determined by the ability of the members of the board, their interest in education, their employments, and the traditions of the town or district; but, on the whole, it was very unsatisfactory, more nominal than real, and particularly so when the schools began to take on a higher form of organization. As the schools of cities and towns increased in size and complexity, things became worse instead of better.

There was no authority adequate to shape and administer the new organization. There was sad lack of unity and intelligent direction. Plainly, something must be done. There now ensued a differentiation; a short step was taken in the direction of system.

Long before this time the principal, or master, had appeared; a head-teacher, who not only taught the highest class of pupils, but who also had general oversight of the building or house where a group of schools and teachers had been brought together. Progressively, the board had magnified the office of the principal, often making him a *de facto* supervisor of his house in respect to various subjects. Naturally, the new needs of the schools were first met, in part, by laying new duties upon him. He became a sort of rudimentary superintendent. The board had also distributed many of its functions among a number of committees, as the committees on teachers, on buildings, on course of study, etc.; said committees being charged with the general oversight and superintendence of the schools, subject to the controlling authority of the board. This state of things existed in Philadelphia until 1883, only the city was divided into many districts and many boards, and it still exists, with the same amendment, in Hartford, Conn. But sometimes the board went farther. For example, the Cleveland Board for many years constituted its secretary acting school manager, charging him to attend personally to all the ordinary affairs of the schools, under the direction of the board, and paying him a small salary for his services.¹ One of these managers was a lawyer and another a merchant, both in active business. Presumably they paid more attention to the business side than to the educational

¹ *Early History of Cleveland Public Schools*, by Andrew Freese, p. 25.

side of the schools; still they did not wholly overlook the latter, as admirable extracts from the reports still extant of one of them show. Besides, visiting committees of citizens were appointed by the board in the various school-districts, whose views and recommendations often had value and exercised no small influence. All these devices, including the conferring of new authority upon the principal, were open confessions that the board could not adequately discharge its legal duty of supervision, and that a new step in the line of development was inevitable. This step produced the superintendent.

All this time public education was increasing in complexity. Cities were growing, and increasing interest in education brought a relatively larger number of children to the school-houses. In a word, the school organization was expanding in every direction. Good schools were found in cities side by side with poor ones, owing to the fact that they had different principals and boards. The greatest confusion and inequality prevailed in cities where the other parts of the public service were well unified; the resulting evils became intolerable, and so school organization became absolutely necessary. These causes compelled the organization of the Cincinnati schools in 1829, the Columbus schools in 1845, and the Cleveland schools in 1848. New York had no school board until 1842, and complete organization was not achieved until 1851. And naturally—nay, inevitably—the unification or consolidation of a group of city school districts, or the appearance of a school system, compelled the creation of the superintendency and the choice of a superintendent. His appearance at the educational headquarters marked the triumph of order and organization over division and chaos. He was the pledge of unity and uniform administration in the schools, and he stands for those ideas to-day.

Perhaps it is commonly supposed that the superintendency is an evolution from the teaching function. If so, there could not be a greater mistake. The superintendent came forth from the school committee or board, as the history plainly shows. As a person, he may have been taken from the teachers, and commonly he was, though not always; but his official duties originated in the delegation to him of powers every one of which still belong to schoolboards and that they often exercise. Nay, more; in most cases where a superintendent is employed, the board could dispense with him and assume, or resume, the general charge and superintendence of the schools itself, if it saw fit. It is important to remember these facts. To quote Superintendent Stockwell, of Rhode Island: "It is extremely unfortunate for the welfare of our schools that, in the development in our State of the work and status of the superintendent of schools, the idea should have been allowed to gain a foothold that the office was in any way independent of the school committee, or that the occupant thereof was responsible to any other than the committee, for the whole theory of the office and of its duties has ever been to make it the medium of the committee's actions, to give opportunity for so unifying and simplifying the work of the committee, as to make it more effective in every respect, and thus to afford a constant and suitable medium for the expression of their will."¹

It is a point well worthy of notice that, in the history of school organization, the high school has been an important factor. The single district of a city could maintain its separate system of elementary schools, but it could not maintain its separate high school, at least not without

¹ Quoted in the *Report of the National Commissioner of Education*, 1886-87, p. 175.

great cost and much inefficiency. Hence the demand for the more advanced grade of instruction compelled the creation of city high schools. Thus, Philadelphia had city high schools for many years side by side with district elementary schools; and such is still the case in Hartford. It cannot be doubted that in the field of popular education the high school has been a unifying agent of great power and usefulness.

The powers and duties discharged by superintendents in different cities and towns are numerous indeed. When Dr. J. G. Fitch returned home from his visit to the United States a few years ago, he reported that the chief executive officer and adviser of the local educational authority occupies a position wholly unlike that of any scholastic officer found in any country of Europe. Within his State, county, or city, he said, the superintendent combines in himself the characters of a minister of public instruction, an inspector of schools, a licenser of teachers, and a professor of pedagogy. Under the sanction of his board or committee he draws up regulations for the work of the various classes of schools, and often appends notes and comments prescribing the method in which each subject shall be taught. With his staff of inspectors he conducts examinations for determining promotions of scholars from grade to grade. He sets questions, examines candidates for the office of teacher in his district, and awards to them diplomas or certificates. He holds institutes, and instructs those teachers who have not been previously trained in the work of their special classes. He also conducts conferences of the older teachers, and gives lectures to them on the history and philosophy of education. He is assisted by a staff of inspectors and supervisors who visit schools under his direction and share with him the

duty of examining children for promotion.¹ Still this catalogue is not exhaustive. Sometimes the superintendent is the architect, or consulting-architect, of his board, its financial adviser, its superintendent of buildings and repairs, its clerk, and what not.

It is important to observe that few of the multiform duties of the superintendent are defined by law. Considering his prominence in public education, it must be confessed that his legal status is ill-defined and feeble. Such recognition as he has is rather indirect than direct. The Massachusetts Law, Section 43, provides: "A city by ordinance, and a town by vote, may require the school committee annually to appoint a superintendent, who, under the direction and control of said committee, shall have the care and supervision of the public schools; or the school committee of any city without such ordinance may appoint a superintendent by a majority vote of the whole board." In the same State two or more towns may, by a vote of each, form a district for the purpose of employing a superintendent of public schools, who shall perform in each town the duties prescribed by law. These powers are permissive, not mandatory; and, so far as I have observed, this is the universal tenor of State school laws in relation to the subject. The Connecticut law directs the board to assign the duty of visiting the schools of the town to one or more of its members, who shall be called the acting school visitor or visitors; and then gives it the power to appoint a person not of its own number to do the same work. In Ohio, with two exceptions soon to be mentioned, the office is wholly in the hands of the local board. The general provision of law is, that the board of any district shall have full power, within certain limitations, to appoint a superintendent and assistant

¹ *Notes on American Schools and Training Colleges*, pp. 60-61.

superintendents of schools, as well as teachers. In Michigan the recognition of the superintendent is still more feeble; the law does not even mention him. In this State, however, the city schools are generally organized under special charters. It would be strange indeed if the law should define very carefully the duties of an office whose very existence depends upon the local school authority. As a matter of necessity, the superintendent's duties are defined in the rules and regulations of the board creating his office and electing him. His status is determined by the manual, and not by the statute-book. There can, I think, be little doubt that the superintendent of the future will have a better defined legal status than the superintendent of the present. And yet, in the nature of the case, details must always be left to the local authorities. In fact, the powers before enumerated do not all belong to any one superintendent; special conditions have given the office special forms, and so they will continue to do. It would be difficult to draw up a list of powers that all superintendents do exercise or should exercise.

It can hardly be supposed that the superintendent of the future will perform as many duties as the superintendent of the past has performed, or as the superintendent of the present performs. The very law that compelled the board of a half century ago to divide the work—the law of specialization—will sooner or later compel a division of the duties that are now united in the superintendent's office. In the smaller cities especially the office has become decidedly top-heavy. Many superintendents are too much burdened, particularly with details, to do the best work. Relief may be sought, of course, in the multiplication of assistants; but

the office is too much expanded for strength and efficiency. And it is when we come to the question, "What shall the new division be?" that the practical topic of this paper is brought most directly before our minds.

It is clear at a glance that the powers and functions of the superintendent are divisible into the two categories of pedagogy and business. Perhaps the work of no other public officer is more evenly divided between professional and business affairs. Leaving out of account the zeros or nobodies, there are now, and for some time have been, two classes of superintendents; the line of division, which is by no means a hard-and-fast one, running between professional duties and business duties. Superintendents can be named who have won their reputation in the one field or in the other. Some superintendents are men of the office, others of the schoolroom and the lecture hall. Pedagogy is pretty sure to subordinate business administration, or *vice versa*.

Now it seems clear that this line will become more clearly marked as time goes on. As cities grow in size; as school systems become unwieldy; as the popular demand for more man and woman and less machinery increases, the typical superintendent must be more of one thing or the other. He must be more of a school man or more of a business man. Which shall it be?

First, I see no reason to think that the future movement will be the same in all places. Quite the contrary. Special conjunctions of circumstances will sometimes turn the development in one direction and sometimes in the other.

Secondly, strong arguments can be urged to show that the general direction will be toward the office and not toward the schools. The practical, or business, aspect of American life in almost all departments is very pronounced.

College presidents are quite a different class of men now from what they were a half century ago. In the great colleges, at least, they are coming to stand more for administration, and less for scholarship, pedagogical attainments, and teaching. In all cities, and most of all in large ones, the tendency toward machinery and bureaucracy in all kinds of work is strong. It is hard for the individual to assert his personal force. The superintendent's temptation to busy himself with manipulation is great. Nor can it be denied that there is an abundance of such work to be done. Already the schools of some cities have severely suffered in consequence of this tendency. Competent judges will hardly deny that the larger the system the less the personal force of the superintendent is likely to be felt. In a city of moderate size a man of common mould may strongly influence his teachers and through them his pupils; but what can such a man do as the head of a great city system? The position calls for a man of gigantic mental and moral force. It is my opinion, and one not hastily formed, that the best superintendence is now found in the smaller cities. There, as I believe, the superintendent who has ideas and personal force finds his largest opportunity. I may add that few spectacles are more pitiful than that of a little man at the head of one of the great school systems of the country. He is about as competent to vitalize and energize the schools as a pocket dynamo is to drive a city railroad.

These considerations impel me to the conclusion that in the great cities the superintendent will, as a rule, tend to machinery and administration; that he will become even more an office man than he now is, and that he will be less known in the forum of educational thought than he is at present. I am making no onslaught upon the gentlemen who now occupy these positions. Undoubtedly some

of them are educational men and do educational work; but as a class they have not proved themselves able to rise superior to their limitations. I cannot resist the impression that the superintendents of a dozen large cities that can be named exercise much less direct educational influence than did their predecessors thirty years ago. It is true that some method of dividing labor and of organizing forces may be invented that will turn the stream of movement the other way; but such does not appear to me to be the probability.

We now come to cities of less size where the best supervision is now found, and where the conditions for the development of the superintendency are most favorable. It seems probable that here the general movement will be along the other line of direction. The existing conditions make it possible; various causes conspire to bring about that result. It is a dictate of the highest wisdom. The good of the schools demands professional supervision; while it is plainly bad economy to employ a trained educational expert in such inferior capacities as clerical duties and supervising schoolhouse construction and repairs. Accordingly, the school supervision of many towns and cities will tend to become more professional than it has ever been. It cannot be denied or doubted that hitherto our superintendence has partaken somewhat of the nondescript character of the teaching body itself. But to be more definite: What duties will the superintendent of the future perform? The present answer will be limited to considering rather briefly his relations to the schools in three or four different aspects.

1. The sober common sense of the people, extending over a considerable period of time, may be a good general guide to what should be taught in the schools, since the schools must be kept in touch with the people; but

there are many questions as to choice of studies, and adjusting the studies to one another in the course, that they can never settle. The order in which the several studies shall appear, the amount of work that shall be done in each study, and even the choice of studies can never be settled by a *plébiscite*. Nor can the average board of education, although its voice be regarded as expressing in a more clarified form the popular mind and will, intelligently settle these questions. Especially are both the *plébiscite* and the vote of the board utterly helpless when parallel courses are to be adjusted in high schools. The course of study calls for expert knowledge and experience, and this call the superintendent must meet. Questions relating to studies promise to be more troublesome in the future than in the past; the pressure upon the course is all the while increasing; and we may fairly expect therefore that the superintendent will be more prominent in settling these questions than he has been.

2. Every argument that can be adduced showing that the superintendent, guided by the popular intelligence and advised by his board and corps of teachers, should make the course of study, tends with equal force to show that, with the same limitations, he should also choose the text-books: and with even greater force, because the text-books are the course in a very much more definite and practical sense than the course so-called itself. The course is but a vague outline; the books are minute and definite.

But there is good reason why the superintendent does not now exercise the same influence over books that he exercises over the course of study. There is "money" in the books and not in the course; and wherever there is money disturbing influences manifest themselves. While the publishing interest, through its intelligence and enter-

prise, has done much good it has also done some harm. Sometimes it thrusts itself between the superintendent and his board, the newspapers, or the public. Sometimes it enters the political field to influence elections. Sometimes it corrupts the moral sense of teachers and superintendents through its largesses of various kinds. Enough has been said to suggest that the control of the superintendent of the future over books will not be as large as his control over studies; also to suggest why it will not be wise for him to seek the same control in the one sphere that will be cheerfully accorded to him in the other—unless he can in some way be protected against foreign interference.

3. Superintendents of different cities now stand to the appointment of teachers in very different relations. The superintendents of Cincinnati and Cleveland nominate all teachers, and the board simply confirms or rejects their nominees. The Superintendent of Brooklyn, on the other hand, has nothing whatever to do with the appointment of teachers. His only check is, that he examines and certifies them. Commonly, however, the superintendent and the committee on teachers act together in making nominations to the board, the first rather taking the initiative. The superintendent ought in reason, if a fit man for his place, to have large control of the teaching force. Far more than anyone else, the public hold him responsible for the work done in the schools, and it is surely a hardship to deny him adequate power. At the same time there are excellent reasons why his power is more limited, and is likely to be more limited, here than in some other matters. Personal elements play a considerable part in appointments. Cincinnati and Cleveland have been referred to. The Cincinnati law gives the superintendent large power, and also exposes him to a

danger that he should not be called upon to confront unless he can in some way be shielded against it. The Cleveland law gives the superintendent the same power, and also affords him immediate protection, since it makes good behavior his tenure of office. This law creates the office of superintendent and gives the incumbent a firm legal status, while the Cincinnati law merely assumes that such an office exists. Both laws, and particularly that of Cleveland, have excited no little interest among educators. The rule or method of appointing teachers is not of great importance, provided always that the superintendent shall exercise a due and reasonable influence.

4. Finally, we may expect to see the superintendent of the future more prominent in the field of instruction than the superintendent of the past has been. I do not mean that he himself will teach more directly, but that he will teach more indirectly. Here there is little to interfere with him; here the need of professional help on the part of teachers, especially the young and inexperienced, is very great; here the progress of educational science opens up increasing demands, and here, as I believe, is the field in which he will find his greatest opportunity—to instruct, inspire, and lead his teachers. Just what this instruction and leadership should be, space cannot be taken to discuss, but only to say that it must be professional.

The bearing of all this upon the superintendent's abilities and preparation is obvious. He must have the requisite talents for getting on with people, but he need not be a "manager," a "manipulator," or a "school politician." But there will be an imperative demand for more thorough education, for wider culture, and especially for fuller instruction, on his part, in the science, the art, and the history of education.

XV.

THE EDUCATIONAL FUNCTION OF THE MODERN STATE.¹

ITHOUT a doubt the most impressive political fact of the last hundred years is the enormous advance made by the forms and the spirit of democracy over the larger part of the civilized world.

Sir James Stephen, of the English Bench, says two different views may be taken of the relation between rulers and their subjects. According to one view, "the ruler is regarded as the superior of the subject, as being by the nature of his position presumably wise and good, the rightful ruler and guide of the whole population." According to the other view, "the ruler is regarded as the agent and servant, and the subject as the wise and good master, who is obliged to delegate his power to the so-called ruler because, being a multitude, he cannot use it himself." Which one of these two theories is the true theory, does not now concern us; but we are concerned to know the fact that, since 1775, with temporary revolutions towards the older view, the newer one has been going on conquering and to conquer. Sir Henry Sumner Maine, commenting in 1885 upon the words of Sir James Stephen, told but the truth when he said: "Russia and Turkey are the only European States which completely reject the theory that governments hold their powers by

¹An address delivered at Elgin, Illinois, before the Northern Illinois Teachers' Association, April, 1891.

delegation from the community, the word 'community' being somewhat vaguely understood, but tending more and more to mean at least the whole of the males of full age living within certain territorial limits. This theory, which is known on the Continent as the theory of national sovereignty, has been fully accepted in France, Italy, Spain, Portugal, Holland, Belgium, Greece, and the Scandinavian States. In Germany it has been repeatedly repudiated by the Emperor and his powerful Minister, but it is to a very great extent acted upon." England, he says, stands by herself. While the law and the constitution speak the old view concerning the relation of ruler and ruled, "there is no country in which the newer view of government is more thoroughly applied to practice."¹ The Queen of England reigns, but she does not rule. On this side of the Atlantic, the change is still more complete. With the downfall of constitutional monarchy in Brazil, the whole American Continent, except the British Possessions, has become republican in form as it was before democratic in spirit; while the British Possessions are democratic in spirit and all but republican in form.

Remembering that man is nowhere more conservative than in religion, we cannot say that the change is less marked in Church than in State. The State churches have not been dis-established, nor have they changed their forms; but beneath the ancient theological formulæ and ecclesiastical organizations, great changes of faith and feeling have been occurring. The bishops still hold their chairs, but their tone is very different from the tone that they held in the Middle Ages. Moreover, the type of bishop has materially changed. Religious faith and obedience are shifting from the basis of dogma and

¹*Popular Government*, pp. 7, 8.

authority to a basis of visible adaptation to the needs of individual life and social well-being. Undeniably, the Church as well as the State is becoming democratized.

But perhaps democracy has won its greatest triumphs in education. At least, we cannot fail to see them, no matter under what aspect we view the subject.

First, the new spirit is seen in studies and school *curricula*. The policy of the kingdom of education a century ago was very narrow and exclusive. The classics, mathematics, some philosophy, natural and mental, and a little rhetoric, constituted the uniform course of study in all schools of liberal learning. The exclusiveness of the old curriculum, and the retardation of modern studies, were largely due to the contemptuous feeling for everything not branded "classical," which came in with the revival of letters and was such a pronounced feature of humanism. But the power of the old tradition has been broken; the new studies jostle the old ones; the humanities, old and new, mathematics, science, history, philosophy, and literature compete for students on equal terms. Numerous new *curricula* have been established; electives have received full recognition; and the narrow idea that "course of study" once conveyed has been set aside. The same thing is seen in the extraordinary differentiation of the school. Once there was but a single type; now there are many types, to say nothing of the variety of work that is done in schools of the same name.

The democratic spirit has powerfully affected the teaching force. Women, for example, were not employed as teachers in antiquity. It was the same way in the Middle Ages. The exceptions in either period, as that of Hypatia at Alexandria, and the young ladies who sometimes read their fathers' lectures to students at

Bologna, but prove the rule. Now all this is changed. Ninety per centum of the public school teachers of Massachusetts are women, and 68 per centum of those of Illinois. In the whole country the ratio is 63 women to 37 men, but in the cities it is more than 90 women to fewer than 10 men. In England the ratio is 69 to 31. Women are also asking and receiving admittance to the ranks of higher instruction. Again, at the opening of the modern era the clergy monopolized the teaching function. Education was ecclesiastical in a triple sense; in matter taught, in the atmosphere and ideals of the school, and in teachers. The demolition of these barriers, or the laicizing of the schools, is one of the striking facts of educational history.

But it is in the number and character of pupils that the most stupendous change is seen. Once, half of the human race was summarily ruled out with the sweeping assertion that they did not need education and could not in fact receive it. At Athens the only highly educated women were the *heterae*; at Rome woman's position was better than in Greece, but woman has had to await the nineteenth century for her full educational enfranchisement. It has come at last. In 1888 as many as 29.3 per cent. of all the students pursuing education in the universities and colleges of the United States were women. In the elementary and secondary schools, girls, on the whole, considerably outnumber boys. In European countries the showing is not so favorable, but in those countries the old spell is completely broken. I can see no good reason why, in the United States, the women studying in colleges should not in another generation equal the men.

But still more, antiquity made no attempt to teach the major part of the males. The Oriental nations doomed

the masses of their population to an irremediable ignorance and bondage. The classic civilizations rested upon an enormous basework of slavery. Education was little more than a class privilege in Athens. When Pericles said thought was the distinguishing feature of the Athenians, he meant of the few thousands who swarmed around the *bema* to hear his speeches and into the *agora* to vote on public questions. The old writers are not wanting in humane and liberal sentiments; very elevated views of virtue, character, and enlightenment are found in the great ethical writers of antiquity; but the pages of Plato and Aristotle are heavy with the iteration of the essential baseness of the majority of mankind. The constant assumption is, that any attempt to educate and lift up this mass of ignorance and depravity would be hopeless and foolish,—as indeed it was until the Son of Man, breathing into men the enthusiasm of humanity, gave to the world a new ideal and a new motive power. Until recent times the whole conception of education was narrow in the extreme. The idea that any system could be devised powerful enough to reach and to educate the whole mass of men—to permeate it with light and knowledge—never began to assume a practical shape, and was by no means deemed generally advisable, until the new spirit had changed the temper and the ideals of the world. This change has not been wrought in the last one hundred years; centuries have been required to effect it; but at last the conviction that society, from top to bottom, can be, and must be, educated, has taken fast hold of men's minds. We have learned the meaning of education as our fathers learned the meaning of freedom, which was its necessary precursor; and an educational orator of Curran's genius might equal the immortal passage in which he dignified the genius of universal emancipation.

Let me call brief attention to one of the most interesting educational movements of the times. I mean University Extension, which has made so much headway in England, and is now beginning to get a foothold in the United States. This is an attempt to carry the university, by means of lectures, examinations, and courses of prescribed reading, to people who cannot come to the university. It is a democratic movement in the best sense of the word, and recalls the noble spirit that attended the original establishment of universities. We read that there were at one time 20,000 students at Bologna, an equal number at Paris, and 30,000 at Oxford; and any man who has seen how pervasive, how democratic, how stirring, that great intellectual movement was, and especially if he has read the story of the wandering scholars, has no difficulty in seeing how these results were reached.

The paths by which men reach the grand conclusion are as numerous as the other elements entering into modern education. The political economist tells us that education promotes a man's efficiency as a producing agent; the moralist says he must be forfended against the approaches of evil; the statesman emphasizes the fact of citizenship; the political philosopher says all the members of the State have an interest in one another; the minister of religion recognizes the relations of mental enlightenment and the religious life, while the educator sums up all in the declaration that a man must be educated because he is a man.

To place in a graduated scale the various forces that have contributed to create the genius of universal education would be no easy task. However, no man who is really in sympathy with the great democratic movement of the century is likely to place the political force below the summit. One of the two golden sentences relating to

education in Washington's Farewell Address, is: "In proportion as the structure of the government gives place to public opinion, it is essential that public opinion should be enlightened." The sentiment is as wide as democracy. The wisest men everywhere see that democracy is not a universal form of government; that it is not a machine that can be wound up once in two or four years, and then be suffered to run alone; but that it is adapted only to certain conditions, one of which is a high average intelligence and morality, and that universal suffrage means universal education.

This rapid review brings us to the question that forms the heart of the present address: How shall the people be educated? Or, more definitely, how shall universal education be provided? Before attempting to answer, let us get a more exact idea of what, on the material side, national education means. Five or six statistical items from the "Report of the Commissioner of Education" for 1887-88 will answer our purpose.

That year there were in the United States 219,063 public school buildings, and 11,952,209 pupils in the schools, exclusive of high schools (an item that was not adequately reported), with an average daily attendance of 7,852,607 pupils. These pupils were taught by 347,292 teachers; the valuation of public school property was \$297,481,328, several States being omitted; and the total school expenditure of the year, not including payments on bonded indebtedness, was \$122,455,252. The State of Illinois had 12,208 school houses and 15,744 teachers; 751,349 pupils in the schools, averaging 518,092 in daily attendance; a total school expenditure, counted as before, of \$10,279,-374; school property valued at \$24,940,783; and a permanent school fund of \$10,383,133. These statistics are

three years old. The people of the country are now expending for public schools more than \$130,000,000 annually.¹ Still, the showing of the cost of education is not complete, until we add the statistics of private schools, church schools, and of colleges and universities—the whole making a total that is simply overwhelming. Nothing could show more conclusively the hold that education has taken of the American mind. And yet in many States the supply is very defective.

How shall this enormous burden be borne? It is very clear that it cannot be left to individual effort. For, first, a considerable number of persons take no interest in the education of their children; secondly, many have no proper ideals of educational ends and requirements; and, thirdly, the provision of education for their families is far beyond the pecuniary ability of a great number of people. The notion that education can be left to individuals must be summarily dismissed.

But it has often been said, and will often be said again, that, were the State to step aside, voluntary associated effort would come to the relief of individual initiative. It is argued that voluntaryism is now a powerful educational agent; that it is at the same time greatly weakened through State interference; and that it is just as competent to furnish schools and education as it is to furnish churches and religious teaching. Herbert Spencer² has labored hard to establish this doctrine, but, fortunately, he has failed to impress the public mind with it, and has not succeeded even in carrying the *laissez faire* philosophers all with him. Still it demands a closer scrutiny.

In all countries where the moral energies of the people have not been broken down or dwarfed by paternal gov-

¹ For the year 1893-94, the total expenditure was \$170,384,173

² See *Social Statics*.

ernment, voluntaryism is a prodigious power, capable of accomplishing marvels, not only in industry and commerce, but also in morals, education, and religion. Witness England and the United States. The Catholic Church even, which had been accustomed for centuries to depend upon the State, is surprised to discover in this country how potent voluntaryism is. All honor to the churches and associations that have made this great discovery. What is more, at a time when multitudes of our fellow-citizens, weary of independence and self-helpfulness, are loudly invoking the Genius of Paternalism to bless the country, let us beware of weakening this incomparable agent, to which so much that is great in American civilization is due.

But a moment's reflection must make it clear to every man other than a hopeless *doctrinaire* that voluntary enterprise cannot educate the whole people. Look again at the statistics showing the vastness of the undertaking and the immense resources required to compass it. Look into the great cities, with their hundreds of school houses, thousands of teachers, hundreds of thousands of school children, and enormous school expenditure. Public-spirited as are the citizens of Chicago, and immense as are their resources, the proposition to abandon the public school system of the city and go back to private enterprise, would be no less absurd than the proposition to throw away the steam fire-engines and go back to buckets and hand machines. On this point the testimony of experience is absolutely conclusive. No people that relied exclusively upon voluntary agencies for education ever became educated. Every educated people have been compelled to invoke a power higher than private enterprise. The Church, of course, has been the chief voluntary agent in Christian countries; but the Church has never

undertaken, even if it has ever conceived, the task of educating the whole people. On the contrary, the Church has commonly put forth its mightiest energies when stimulated by the most formidable competition from some non-ecclesiastical source.

On this branch of the argument the history of England is of peculiar interest. Down to sixty years ago, voluntary effort was the sole educational resource. It produced colleges, universities, and secondary schools that are the glory of England; but in the field of popular education its highest achievements were the Dame School, celebrated by Shenstone in "The Schoolmistress,"¹ and the Sunday Schools organized by Robert Raikes, at least until it was quickened by the demand for national education. But even the Dame Schools and Sunday Schools were miser-

¹"In every village mark'd with little spire,
Embower'd in trees, and hardly known to Fame,
There dwells in lowly shed, and mean attire,
A matron old, whom we Schoolmistress name.

"The noises intermix'd, which thence resound,
Do Learning's little tenement betray:
Where sits the dame, disguis'd in look profound,
And eyes her fairy throng, and turns her wheel around.

"One ancient hen she took delight to feed,
The plodding pattern of the busy dame;
Which, ever and anon, impell'd by need,
Into her school, begirt with chickens, came!
Such favor did her past deportment claim;
And, if Neglect had lavish'd on the ground
Fragment of bread, she would collect the same;
For well she knew, and quaintly could expound,
What sin it were to waste the smallest crumb she found."

ably inadequate in number. The masses of the people were wholly untaught. Sidney Smith declared "there was no Protestant country in the world where the education of the poor had been so grossly and infamously neglected as in England"; Malthus said it was "a great national disgrace that the education of the lower classes of the people should be left mainly to a few Sunday schools"; while Dean Alford wrote as late as 1839: "Prussia is before us; Switzerland is before us; France is before us; there is no record of any people on earth so highly civilized, so abounding in arts and comforts, and so grossly, generally ignorant as the English." And all the time representative Englishmen regarded the situation with perfect complacency. Lord Eldon, in 1807, thought popular education one of the worst delusions of the times, and the Archbishop of Canterbury exhorted the Lords not to shake the foundations of the established religion by introducing innovations. The charity schools were pronounced all-sufficient. Bishop Horsley said in the House of Lords, in 1795, that he did not know what the mass of people in any country had to do with the laws but to obey them; and Lady Harrowby, in 1832, asked how it mattered what the people thought or said about public matters, provided the army could be depended upon. In 1807, when the subject of popular education was first brought before the House of Commons, the majority, according to Sir Samuel Romily, thought it was better for the people to remain in ignorance. The accomplished Windham opposed the pending bill because some mutineers in the Channel fleet had read the newspapers; while another orator declared that the French Revolution was due to the people's reading books. "Blackwood's Magazine" opposed popular education because it would make the people restless and uneasy;

because, since ignorance is the mother of contentment, they should receive only a religious education that would render them patient, amiable, and moral, and relieve the hardship of their present lot by the prospect of a bright eternity.

In 1832 Parliament voted 20,000 pounds sterling for education. The grant was repeated several years, and then gradually increased. Religious partisans now took alarm; men of the Establishment, because they dreaded the tendencies of popular education, and Dissenters, because they feared that the Establishment would monopolize the grants. The result was the organization of a movement composed of men who declared State education not only wrong in principle but unnecessary and harmful in practice. The Voluntaryists strove to show their faith by their works. They beat loudly the drum ecclesiastic. Never, perhaps, was a harder struggle made to reach a similar end. But all in vain; the experiment was tried out to the end, and ended in confessed failure. While it was in course of trial, Lord Macaulay delivered in the House of Commons, in 1847, the celebrated speech on education which was one of the causes of his defeat at Edinburgh at the next election. This masterly speech should be read by every man who places faith in the sufficiency of voluntary education. Macaulay described, as only he could describe, the ignorance of the English masses. Of 260,000 people married in 1844, he said, more than 100,000 signed their marriage papers with a cross. His impassioned thought burst out in passages like this:

I do believe that the state of education among the common people of this country ought to make us ashamed, and that we should present a melancholy spectacle to any very enlightened foreigner visiting our shores. Under these circumstances, what is

said? We are told that the principle of non-interference and of free competition will be as powerful a stimulus to education as it is to trade. Why, this morning I received a paper containing reasons for opposing the present grant; and it is said that if we only wait with patience, the principle of free competition will do all that is necessary for education. We have been waiting with patience since the Heptarchy. How much longer are we to wait? Are we to wait till 2847 or 3847? Will you wait till patience is exhausted? Can you say that the experiment which has been tried with so little effect has been tried under unfavorable circumstances? Has it been tried on a small scale, or for a short period? You can say none of these things; and I defy you to show that you ought to apply to education the principle of free competition. The principle is not applicable.

Not the least effective parts of this speech were the passages in which the orator told what the Scotch and the New Englanders had done in the field of popular education by the invocation of the power of the State.

Conservative as the English people are, and well schooled in *laissez-faire*, they have been compelled more and more to abandon competition as an educational agent, and to call in the agent that had already produced such great results in Germany, in Scotland, and in New England. The Forster Act of 1870 was a long step forward; and the results immediately following it were, no doubt, the greatest of their kind ever produced by a single enactment. According to Sir Charles Reed,¹ the London School Board alone, in the years 1871-1880, provided facilities for the schooling of 225,236 children; and similar results were seen all over England and Wales, to which alone the Act applied. The Forster Act, which was at the time by no means satisfactory to the ardent champions of public education, has been strengthened both by supplementary legislation and by better adminis-

¹ See his statement made to the London School Board, Sept. 30, 1880. *Memoir of Sir Charles Reed*, by his son, C. E. B. Reed.

tration. And yet dissatisfaction with what has been done is all the time growing. Parliament must go still further, as is shown by the admission made within the year by leading Tory statesmen, including Lord Salisbury, that the children's pence, or rate bills as we should call them, which produce some £2,000,000 annually, must be disregarded and an equal amount be furnished by the treasury. Such legislation will be the next important step in the history of popular education in England.¹

So we come back again to our text. How shall the education of the people be provided for? The only answer to this question is, the State, the Organized Nation, the Embodied People, acting through the government. The State can effect the result. It can create and administer the necessary educational institutions. It can furnish the needed funds. It can wield the required coercive authority. Practically there is no limit to what it may do, save alone the popular will and the resources of civilization. Furthermore, the government is the only agent that can do this work. No people ever became educated that did not invoke its authority. No people ever invoked it in good earnest that did not find it sufficient. In some of the German States the work is done so thoroughly that practically illiteracy does not exist. Dr. Stanley Hall says of Prussia:

We cannot study too carefully here the chief feature of this great educational State. Its magnificent campaign against ignorance opens with matchless vigor. Every parent must send his child to school from six to fourteen—in many places they still pay a trifling monthly fee—or he is, as Luther held, an enemy of the State. He might almost as well refuse to pay taxes or fight an invading foe. In 1888 of about 5,000,000 German children only 5,143 were absent from school without cause. In Berlin in the

¹ See note, p. 312.

same year 14 boys and one girl of school age evaded the law, but this result was secured by fining 1,020 parents and arresting 1,088. Illiteracy proper is practically extinguished.¹

It is scarcely an exaggeration to say that nations have become educated in the ratio that they have enlisted government in the work. How significant are the expenditures for public elementary education in England and Wales for the last twenty years.

1869-70.....	£1,673,306
1879-80.....	6,327,460
1888-89.....	9,043,565

The parliamentary grants increased from £20,000 in 1832 to £3,684,000 in 1890. In 1869 the number of children in average attendance in elementary schools was 1,062,299; in 1888 it was 3,614,967—an increase of three and a third times in nineteen years. Voluntary education has become practically stationary.

The recent educational history of France teaches the same lesson. In 1881 primary education was made compulsory, and in 1882 gratuitous. These are the expenditures for public education of all kinds at the dates mentioned:

1857.....	16,523,969 francs.
1878.....	59,216,449 "
1888.....	146,000,000 "

State action has often stimulated voluntary action. It was so in England in the palmy days of voluntaryism. It is so to-day in the United States. Far be it from me to belittle the educational zeal of the Catholic Church; but does any man for a moment suppose that Church would ever have built up its present schools, capable of teaching 600,000 pupils, had it not been incited thereto by the public schools?

¹ *The Pedagogical Seminary*, Vol. I., p. 3.

Nor can the State afford to be an idle spectator in this matter. In ancient States dominated by absolute despots, or in medieval States dominated by petty tyrants, that was possible, but the character of the State has greatly changed in modern times. Democratic forms, and still more the democratic spirit, has become a prodigious social force. In the modern State no man lives to himself and no man dies to himself; every man affects and is affected by every other. The safety of the State, the well-being of the whole people, the preservation of the government, demand popular education. Lord Macaulay summed up the argument in the epigram, "If the State may hang, the State may educate."

The conclusion then is this: A State has the same right to educate the people—that is, to educate itself—that it has to perform any other great public function or office. The arguments which prove that it should provide police, health inspectors, and an army, prove that it should provide schools and education. Moreover, voluntary effort is just as competent to defend and police society as it is to educate its members. All these incomparable public interests call for the organized efforts of the sovereign nation.

That universal education means State education, is so demonstrably true that it is hard to see how any modern mind can resist the proposition. One almost feels like apologizing for seriously arguing it; still, it is important to perceive clearly just what State education means. It does not mean the education of the people by an abstraction called the State; it does not mean the education of the many by the few or the few by the many; it means merely that the people, or the nation, educate themselves through the same agency that they use to secure the peace of their streets, to defend their coasts, to carry their letters, to

conduct scientific surveys, to found libraries, and to care for the unfortunate classes—that is, the Government.

State education involves several corollaries that should be clearly stated.

First, State education does not necessarily mean the complete absorption of education by State schools. While the State must see that its members are adequately educated, it may leave the education of those children whose parents prefer it to non-State schools. Private schools and Church schools, like public-schools, are the legitimate subjects of criticism; but to assail them as illegitimate or useless argues a narrowness that, under changed circumstances, would also assail the public schools. Undoubtedly, such schools are a valuable and an indispensable part of the educational supply of society. It is to be observed, however, that the State has the undoubted right, in view of its sovereignty, to assert a general control over non-State schools. Whether it shall exercise this right or not, is a practical question to be answered when and where it arises. The answer must depend upon the conditions present in a given case.

Secondly, the State school must be conducted on the same principle as other branches of the government. It is a civil institution, and must be conducted on the same lines as other civil institutions. The meaning of this is that the State school must teach those subjects that society wants to have taught, and that affect the welfare of the State. Whatever does not come within this compass must be eliminated. The common school is for the common benefit, and it must meet common wants. No man worth regarding now teaches the doctrine of the social contract; still all teachers of political philosophy recognize the fact that practical government is impossible, particularly in

democratic societies, save on the principle of striking an average. Only by putting the State school on distinctly civil ground can we logically defend it. Fortunately, the margin of possible difference of opinion as to what shall be taught in the public school is a narrow one. Everybody says the elementary branches of learning must be taught, and the universal morality; while there is a growing conviction that the State must also provide secondary and higher instruction.

Unfortunately, this view is obnoxious to some excellent people. As though that were a terrible thing, they say that it secularizes the school. Will these people kindly go back a few centuries to the time when the State was a semi-ecclesiastical institution? To the time when every function of government was much more theological or religious than the American school now is? The theory of the State, the ends of the State, and to a great extent the motives of the State were ecclesiastical, while a majority of public functionaries were ecclesiastics. But the modern State has been both secularized and laicized in these particulars. Even the Church is regarded by the statesmen of some countries mainly from the civil standpoint. The old political philosophy is gone. Religious wars have ceased. Not only Becket and Langton have vanished, but also Pole, Wolsey, Mazarin, and Richelieu. Once there were as many lords spiritual in the House of Lords as lords temporal; now there are one-tenth as many, and these exercise little influence save on ecclesiastical subjects. No English ecclesiastic has been Lord Chancellor since the seventeenth century, and not one has held a high office of state since the beginning of the eighteenth. Since 1801 the law has forbidden men once admitted to orders in the Established Church to sit in the House of Commons. It has taken many steps to

effect these momentous changes. Every one of them has been resisted by men of the ecclesiastical mental habit. But can any man in possession of a modern mind doubt that both politics and religion have been great gainers in consequence? Or can such men doubt that, eventually, the State school must be put on the same footing as the other departments of the civil administration? Or, again, can he doubt that this will be for the ultimate advantage of all concerned?

It will be said that the school differs from other State institutions in this,—that it is an educational agent and has to do with the formation of character. The reply is, that the putting of other civil institutions on a civil foundation was once opposed as strenuously, and with the same argument. Besides, the State can do its full duty as a moral teacher in the civil school.

But some will persist that man is a religious being, and requires a religious education. Let this be frankly and fully admitted. The answer is that the Church exists for the very purpose of forming the religious character and directing the religious lives of men. If this reply is not satisfactory, possibly we can reach a more definite one.

In Europe the relation of the Church to the school has received far more attention than in the United States. One solution is the denominational school, pure and simple, which is, plainly, no solution at all. A second solution, which, however, is but a form of the first one, is the "blending" system, once in vogue in England. The copies set in the writing books were texts of Scripture, and the arithmetical examples were made out of Bible facts. For instance: "The children of Israel were sadly given to idolatry, notwithstanding all they knew of God. Moses was obliged to have 3,000 men put to death for this grievous evil. What digits would you use to express

this number?" "Of Jacob's four wives, Leah had six sons; Rachel had two; Bilhah had two, and Zilpah had also two. How many sons had Jacob?" These are questions from a "Scriptural" arithmetic once used in English schools patronized by the Established Church. It would be hard to invent any kind of exercise that would more effectually defeat reverence for the Bible. Another solution is the so-called "comprehensive" system of England, which permits definite religious instruction to be given in school to those, and to those only, who wish to receive it. This may work in some countries, but it is impossible in the United States. Under the "combined," or Irish system, the scholars receive secular instruction from the schoolmasters, and separate religious teaching from the ministers of religion. This, no doubt, is the happiest solution that has ever been reached, provided the secular instruction and the religious instruction are given in separate places. This is the French way—a weekly holiday on which parents who are so disposed may send their children to the church or the parsonage to be taught religion by the priest or the pastor.

Thirdly, the public schools and the public-school funds must be controlled absolutely and alone by the public. That is, the State—the corporate people—acting through the government, must control them. In modern society, the only agent to which the State could delegate its power and its resources is the Church or the churches. No other agent asks to receive such a delegation. No other could exercise it. Without entering into the question of what the State may or may not do in countries having established churches, I must declare with emphasis that in the United States government cannot enter into any educational partnership with any church or churches. It is a significant fact that the plan of having the school-

board rent, at a nominal rate, the parochial school houses from 9 A.M. to 3 P.M., and employ and pay the parochial teachers, excluding religious instruction between those hours but permitting it on either side of them, has never found general favor. Nor, we may be certain, will the recent recommendation by a high ecclesiastic that the English plan of having the State pay for the secular education given in denominational schools according to results determined by the State's own examinations, be received with favor. Both plans are antagonistic to American ideas.

Fourthly, it is the duty of the citizen to give the State the same support in discharging its educational function that he gives it in other functions. He has the same liberty of action here that he has in other spheres of State action; he may criticize the State schools and seek to improve them; but to antagonize them and obstruct their operation is an offense of the same kind as to antagonize it in any of its other functions. Such conduct is more than unpatriotic. Were Luther living, he would plainly call such a man an enemy of the State.

It is idle to reply that the ancient States did not maintain common schools, and that State education, as we know it, is a modern idea. The argument proves too much. It would also cut off the post-office, State ownership or regulation of railroads and telegraph lines, scientific surveys, State asylums for the blind and deaf, and many other things that we count the peculiar glory of our civilization. But, further, a State does not, like a fish or a tree, perform constant and unvarying functions. The conception of the State involves absolute sovereignty; but this sovereignty manifests itself in forms that are determined by existing civilization. In a word, the State passes through successive stages of development. The ancient

State did things that the modern State does not do, or at least is ceasing to do; the modern State does things that the ancient State did not do. The ancient tendency was, for example, to unite closely the civil and the religious offices of society in one organization; the modern tendency is to separate them. With few exceptions, ancient and medieval States left education to individuals; the modern State has assumed the duty of educating its members, and is constantly laying upon it increased emphasis. The idea has become deeply rooted in the modern mind that the property of the State must educate the children of the State; and there is about as much probability that the State will yield this function as there is that it will abandon its police or postal organization. On this point the people have made up their minds; their motto is *Nulla vestigia retrorsum*. It was his profound conviction that State education is both inevitable and necessary which led Archbishop Ireland to say, in his St. Paul address before the National Educational Association in July last:

The right of the State school to exist, I consider, is a matter beyond the stage of discussion. I most fully concede it. To the child must be imparted instruction in no mean degree, that the man may earn for himself an honest competence, and acquit himself of the duties which society exacts of him for its own prosperity and life. This proposition, true in any country of modern times, is peculiarly true in America. The imparting of this instruction is primarily the function of the child's parent. The family is prior to the State. The appointment of Providence is that, under the care and direction of the parent, the child shall grow both in body and in mind. The State intervenes whenever the family cannot or will not do the work that is needed. The State's place in the function of instruction is *loco parentis*. As things are, tens of thousands of children will not be instructed if parents remain solely in charge of the duty. The State must come forward as an agent of instruction, else ignorance will prevail. Indeed, in the absence of State action, there never was that

universal instruction which we have so nearly attained and which we deem necessary. In the absence of State action, I believe universal instruction would never, in any country, have been possible.

State action in favor of instruction implies free schools in which knowledge is conditioned in the asking; in no other manner can we bring instruction within the reach of all children. Free schools! Blest indeed is the nation whose vales and hillsides they adorn, and blest the generation upon whose souls is poured their treasure! No tax is more legitimate than that which is levied for the dispelling of mental darkness, and the building up within a nation's bosom of intelligent manhood and womanhood. The question may not be raised, how much good accrues to the individual taxpayer; the general welfare is richly served, and this suffices. It is scarcely necessary to add that the money paid in school tax is the money of the State, and is to be disbursed solely by the officials of the State, and solely for the specific purpose for which it was collected.¹

Considering the source whence it emanates, no stronger testimony than this to the value and necessity of State action in the educational field can be found or desired.

Once more, we can hardly insist too much that the assumption of the educational function by the State was necessitated by the change in the character of the State. Until recent times, the State consisted practically of a small number of persons. The many were an ignorant and voiceless herd. In Athens there were ten slaves for every freeman, while in the days of the Antonines Rome had 60,000,000 of slaves to an equal number of freeman. The republics of medieval times were but somewhat open aristocracies. In nothing, perhaps, is the modern world more unlike the ancient than in the character and composition of the State.

And this brings us back to the momentous fact with which we began—the democratic spirit of modern civi-

¹*Addresses and Proceedings of the National Educational Association, 1890, pp. 179, et seq.*

lization, and particularly of our own century and country. It is the enthusiasm of humanity lifting up manhood, proclaiming liberty throughout all the land to all the inhabitants thereof, assigning to every man a status in society, enfranchising the multitude, strengthening the weak and curbing the power of the strong, asserting that men are members one of another, declaring the right of the most darkened mind to light and knowledge, and providing educational institutions with a view of making instruction coextensive with the State. This spirit has attempted great undertakings. Of these, universal education is the greatest and the noblest. As it is Divine in spirit and in aim, so it may seem superhuman in difficulty. But when we consider the momentum that has been acquired, the experience that has been accumulated, and the vast resources at command, it would be treason to doubt that, in the end, the enthusiasm of humanity will accomplish the work.

NOTE.—The Free Education Act passed the same year that this address was delivered, was a long step in the direction of free education in England. It justified the prediction made on p. 307. At this writing the subject is again before the country in a new form. The palmy days of voluntaryism are spent.

XVI.

SOME SOCIAL FACTORS IN POPULAR EDUCATION IN THE UNITED STATES.¹

HE President Montesquieu devotes Book IV. of "The Spirit of Laws" to the proposition that "the laws of education ought to be relative to the principles of government." It is evident that by the "laws of education" he means the spirit or genius of education, for he proceeds to argue that—

The laws of education are the first impressions we receive; and as they prepare us for civil life, each particular family ought to be governed pursuant to the plan of the great family which comprehends them all. If the people in general have a principle, their constituent parts, that is, the several families, will have one also. The laws of education will be therefore different in each species of government; in monarchies they will have honor for their object; in republics, virtue; in despotic governments, fear.

He contends further that—

It is in a republican government that the whole power of education is required. The fear of despotic governments rises naturally of itself amidst threats and punishments; the honor of monarchies is favored by the passions, and favors them in turn; but virtue is a self-renunciation which is always arduous and painful.

Granting that the existing frame of government in any country should continue to stand, Montesquieu's general proposition is perfectly true. Not only so, it would be

¹ A paper read before the New Jersey State Teachers' Association, Asbury Park, N. J., July, 1894.

equally true in respect to both the genius and the institutions of education if it were made to embrace civil society, or civilization as a whole. Certainly it can be no less important that education should be relative to the social genius of a people than relative to its governmental frame-work.

Once more, it is quite as evident that a relation *will* exist between education and civil society as that it *ought* to exist between them. It is by no means true that civilizations are always homogeneous. Quite the contrary. No civilization has been free from incongruities and contradictions. In England, an hereditary legislative house sits side by side with the most august and powerful representative assembly that has ever existed. State churches are found in Switzerland, France, and Great Britain, although the first two countries are republics, and the other a democratized monarchy. No democratic country equals Imperial Germany in respect to popular education, while Scotland has long surpassed England in that respect as much as England has surpassed Scotland in wealth. History is full of such anomalies as these. They do not, however, disprove the fundamental ideas upon which political philosophy rests. They are due to a variety of causes. One is that the institutions of civilization are never the products of conscious logic or theory, but are rather growths more or less guided by theory. Even in countries where doctrinaires and idealogues most abound, and have most sway, they do not really legislate for the future. Then society does not proceed along the several lines of movement with equal step; and this inequality, again, is due to the peculiar qualities of the national genius and character, and to the varying degrees of resistance that facts accomplished oppose to the innovating spirit. The State churches mentioned are survivals of the period when there was in all Christian states only one Church, and all

men belonged to it; and it is hard to believe that they can permanently breast the waves of modern democracy. It is probable that the House of Lords will sometime be either ended or mended. The slow progress that elementary education had made in England down to 1870 was due mainly to the stronghold of the *laissez-faire* principle on the English mind, to the strong aristocratic tone of English society, and to the indifference or opposition of the Established Church, which, from the first, had failed to take such a hold of the common mind as the Reformed Churches of Scotland and the Continent had taken. But even in England where, as the French say, facts predominate over ideas, social factors tend to coalesce; the year which ushered in the first Reform Bill saw the first Parliamentary grant for education, while the Reform Bill of 1867 was the immediate precursor of the Elementary Education Act of 1870, which again has been followed by the Acts of 1873, 1874, 1876, 1879, 1880, and 1891. Even the staunchest English conservatives seem to have accepted the famous saying uttered by Lord Sherbrooke with immediate reference to the Reform Bill of 1867: "We must educate our masters."

One conclusion to be drawn from the foregoing considerations is, that the historical study of education in any country should be wide enough to include such factors as national character, the time-spirit, political institutions, the industrial system, and moral, philosophical, and religious ideas. Education is never a single or unrelated fact, but is always bound up with a great number of other facts. Partly to illustrate this conclusion, and partly to accomplish other purposes that will appear in the sequel, it is proposed in this paper to point out the educational bearings of three or four groups of statistics drawn from the Census of 1890.

We shall first glance at the series of very interesting tables and maps, found in the Bulletins issued by the Census Office,¹ showing the areas of territory that are occupied by certain *maxima* and *minima* of population. Two explanatory remarks are, however, called for. One is that the Census Office considers those parts of the country which have a population of less than 2 to the square mile as unsettled. These parts amount to something more than a third of the whole, including Alaska. The precise ratio is 1,077,594 to 3,024,880 sq. miles. The other is that urban population is not considered in preparing these tables and maps. The moment that any center of population is discovered to contain an aggregate of 8,000 people, it is called a city, and is at once withdrawn from the computation. Thus, 51.58 per cent of the population of the North Atlantic States was excluded altogether; or, 69.90 per cent of Massachusetts, 78.89 per cent of Rhode Island, and 59.50 per cent of New York. As a rule, the county has been made the unit for these computations. The total population of a county (less the city population as explained above) is made the dividend, its area in square miles the divisor, and the quotient is accepted

¹ The Bulletins used are the following: No. 16 (*Population of the United States by States and Territories, 1890*); No. 52 (*Urban Population in 1890*); No. 48 (*The White and Colored Population in the United States in 1890*); No. 165 (*Population of Places having 1,000 inhabitants or more in 1890*); No. 194 (*Population by Color, Sex, and General Nativity, 1890*); No. 379 (*Wealth of the United States, 1890*). Extra Census Bulletins: No. 1 (*Increase and Decrease of Population, 1880, 1890*); No. 2 (*Distribution of Population according to Density, 1890*). The areas of States are given on the authority of *The Continental Atlas*, Philadelphia, 1894. The statistics of illiteracy come from the *Abstract of the Eleventh Census, 1890*, while the educational statistics proper are taken generally from the *Report of the Commissioner of Education, 1890-91*.

as the average density of settlement. But when the county is of unusual size, as, for example, in the Cordilleran region, or where there is reason to think the different parts of the county differ decidedly in density of population, it is not treated as a whole, but an approximation to the distribution of the population within it is obtained by the use of the town or township as the unit of computation, or by other less exact means in case this is not practicable.¹

The following table shows the areas falling within the *maxima* and *minima* of population designated:

Population 2 to 6 to a square mile.....	592,037	square miles.
" 6 to 18 " " ".....	394,943	" "
" 18 to 45 " " ".....	701,847	" "
" 45 to 90 " " ".....	235,148	" "
" 90 and above.....	24,312	" "
		Total, 1,947,287

The several groups bear to one another the ratios of 304, 202, 361, 121, and 12. That is, 304 parts out of 1,000 parts, had a population of from 2 to 6 to a square mile, etc.

These statistics have a manifest economical significance or value, as the Superintendent of the Census thus explains:

These limits define in a general way the extent and prevalence of various classes of industries. The first group, 2 to 6 to a square mile, indicates a population mainly occupied with the grazing industry, or a widely scattered farming population. The second group, 6 to 18, indicates a farming population, with systematic cultivation of the soil, but this either in an early stage of settlement or upon more or less rugged soil. The third group, 18 to 45 to a square mile, almost universally indicates a highly successful agriculture, while in some localities the beginnings of manufactures have raised into this group a difficult farming region. Speak-

¹Extra Census Bulletin No. 2.

ing generally, agriculture in this country is not carried on with such care and refinement as yet to afford employment and support to a population in excess of 45 to a square mile; consequently, the last two groups, 45 to 90 and 90 and above to a square mile, appear only as commerce and manufactures arise and personal and professional services are in demand.

While territory is constantly passing from lower to higher groups, owing to increase of population, the lower groups, save in a single decade, have constantly increased, owing to the enlargement of the area of settlement. Still, on the whole, population has increased twice as fast as the extent of territory settled. From 1790 to 1890 the one rate was 16-fold, the other 8-fold. In 1790 the area of the lowest group was 348 parts and the highest 3 parts, in 1,111; in 1840 the same ratios were 228 and 7; and in 1890, 304 and 12. In a century the area included in group one increased approximately 7-fold; group two, 5-fold; group three, 12-fold; group four, 18-fold; group five, 30-fold. And yet the highest stands now where it stood in 1860, and is lower than in 1870 and in 1880, owing to the rapid passage of urban population into cities in the most thickly inhabited parts of the country. Such, at least, is the explanation put forth by the Superintendent of the Census, and it would no doubt be confirmed by an examination of the facts.

The important bearings of these statistics on the problem of popular education must quickly become apparent to every mind. Common schools are for the people, and they are dependent upon a certain density of population, as well as upon other material factors. In populous districts fewer schools are called for, relatively, while the system can be more fully developed, owing to the larger numbers and more varied attainments of the children who

are to be taught. The school must be within a certain distance from the home, or the child will attend it with difficulty or not at all. And finally, the interest and enthusiasm of the school depend in a degree upon the number and the range of ability of the scholars present; teachers receive something from the children, as well as give something to them; whence it follows, as a rule, that you can no more make a good school with a handful of scholars than you can make a good fire with two fagots of wood or two bits of coal. It is therefore with excellent reason that a competent writer on popular education in France finds much significance in the facts that he thus states: "Everywhere the population now tends to group itself into the cities and large villages. In France the low rate of increase in the population complicates this situation. The rural districts are depopulated, and there is difficulty in finding laborers to till the soil."¹ Experience has proved that a blizzard is an educational factor that has to be dealt with in the Dakotas.

How dense the population of an American State must be in order to create the conditions essential to the existence of an efficient school system, is a question that, if conducted with reference to ascertained facts, could not fail to interest every student of American society. The practical question would be, "What population to a square mile has experience shown to be necessary to the existence of such a system?" Obviously, a population of from 2 to 6 is inadequate for the purpose. But can such a system be fairly expected to exist where the population ranges from 6 to 18 to the square mile, or must we wait until we strike the higher grade of from 18 to 45 to a square mile? To be sure, this is not the only factor that enters into school supply and popular education. Density

¹ Parsons: *French Schools Through American Eyes*, p. 20.

of population, wealth, and educational interest do not stand in a constant ratio to one another. Besides, the interval between the density of the most thinly populated districts and the density of the most thickly populated is to be considered; also the relative sizes and geographical relations of these districts. Furthermore, the question whether schools shall be made practically a township or district charge, or whether large appropriations for their support shall be made from the State treasury, is an important one. For example, in Massachusetts school provision is almost wholly a town matter; while Pennsylvania distributes from the State treasury among the common schools \$5,000,000 a year, and Ohio and Michigan the proceeds of a State tax of one mill on the dollar of the grand tax duplicate of the State. But here again the wealth of the State and its distribution become important factors; the towns of Massachusetts are better able to provide for themselves than the townships of Michigan would be. Still another factor is school funds or endowments; but as these resources, for the most part, are at first in the form of wild lands, they do not become available more rapidly than the State fills up with population. When all is said, the material factors of popular education, of which density of population is an important one, are so potent that educational zeal equal to that of the Scotch, backed by all their force of character, cannot fully surmount them.

Such an investigation as I have suggested is foreign to the present purpose; and I must content myself with remarking that sparseness of population alone will long compel rudimentary school systems in large settled regions of the United States, at least as measured by the best foreign and domestic standards. Such schools as those of Saxony or of Massachusetts can be looked for only

in communities that at least approach them in density of population. Already the declension of population in many parts of the country has come to be a serious factor in the common-school problem. From 1870 to 1880 only 138 counties fell off in the number of inhabitants; but in the ensuing decade, 455 fell off, about 50 of them, however, because they were reduced in size. The losses occurred in the central parts of Maine, New Hampshire, Vermont, and New York, Northern New Jersey, and Eastern Virginia, and were scattered quite generally through Ohio, Indiana, Illinois, Texas, and Kentucky. Southern Michigan and Wisconsin have also suffered, while in Eastern Iowa a large proportion of the counties have lost population. It is not in education alone, let it be remarked, that these losses signify a declension of civilizing force; they are of much significance also in respect to religion and church life and the whole social economy. Still there is some encouragement in the fact that the tables of succeeding censuses sometimes show a recovery, owing to the introduction of new industrial conditions, as the establishment of commerce and manufactures in the room of exclusive agricultural employments.

One factor may be referred to that cannot be considered at length. This is means of communication. The number, the convenience, and the kind of roads existing in any region of country appreciably effect its school attendance. The same may be said of railroads, horse cars, and electric cars. The bicycle even has come to play its part. The more abundant, the better, and the cheaper the means of communication, *ceteris paribus*, the farther apart school houses can be placed, and the more remote from the homes of the children, thus securing concentration of attendance with its accompanying benefits. There is reason to think that many States will commit themselves to the plan of

reducing the number of schools in their more populous parts, placing them at the most eligible points, and then carrying the children, or at least such of them as stand in need of being carried, to and from the school at the public expense. There can be little question that in this way the schools could be improved and money at the same time be saved. This has apparently been shown by the trial of the plan in Massachusetts. There can be little doubt that means of communication will play an increasing part in popular education in the future.

To make the argument more definite, we may compare the two oldest sections of the Union in respect to density of population. The nine North Atlantic States contain 168,655 square miles of territory, which is thus distributed in respect to population:

Population 2 to 6 to the square mile.....	11,759	square miles.
“ 6 to 18 “ “ “	10,000	“ “
“ 18 to 45 “ “ “	45,733	“ “
“ 45 to 90 “ “ “	69,267	“ “
“ 90 and above “ “ “	19,824	“ “
Total settled area, 156,682; unsettled, 11,973.		

The South Atlantic States contain a total area of 282,-555 square miles, which is thus distributed:

Population 2 to 6 to a square mile.....	19,854	square miles.
“ 6 to 18 “ “ “	55,675	“ “
“ 18 to 45 “ “ “	143,962	“ “
“ 45 to 90 “ “ “	35,152	“ “
“ 90 and above “ “ “	902	“ “
Total settled area, 255,455; unsettled, 27,100.		

If we hold that a population of less than 18 to a square mile, or 648 to a Congressional township, does not, as a rule, furnish a suitable basis for a good school system, then in the one group of States we should throw out a little more than one-eighth of the settled area, while in the

other we should throw out nearly one-third. Or, to put the facts in another way, while the North Atlantic States have about six-elevenths of the settled area of the South Atlantic States, and double the population, they contain more than twenty times the area having a population of 90 and over to the square mile, and double the area falling into the group of from 45 to 90. In the group 18 to 45 to the square mile, the ratio is about 4 to 1 in favor of the South. The contrast would be even more striking if we were to present the statistics for the several States separately. For example, Massachusetts has no territory that falls into either the first or second group, while the areas that fall into the third, fourth, and fifth groups respectively are 959, 4,149, 3,932 square miles. Virginia, on the other hand, has no territory that falls into either the first or the fifth group, while the figures for the second, third, and fourth groups are 3,109, 29,895, and 7,122 square miles respectively. Moreover, this is taking no account of cities, which cut a great figure as we shall soon see.

The average population of the North Atlantic States to the square mile was as follows: Maine, 20; New Hampshire, 40.4; Vermont, 34.4; Massachusetts, 269.2; Rhode Island, 276.4; Connecticut, 149.5; New York, 121.9; New Jersey, 184.8; Pennsylvania, 116.2. The New England States together reached the high average of 70.7; New York, Pennsylvania, and New Jersey, together, the still higher average of 124.2 to the square mile.

The South Atlantic States presented the following averages: Delaware, 82.1; Maryland, 85.3; District of Columbia, 3,291.3; Virginia, 39; West Virginia, 30.7; North Carolina, 30.9; South Carolina, 37.6; Georgia, 30.9; Florida, 6.6. The average population of these States was 31.3 to the square mile.

But we must approach this aspect of the subject more closely. In 1890 the United States, not including Alaska, contained 3,024,880 square miles of territory; 62,622,250 people, and 443 cities of 8,000 inhabitants or more each. Of the total population, 18,235,670 dwelt in the 443 cities, or 29.12 per cent of the whole. Related as these elements are, they nevertheless present no constant ratios. Population is distributed with little regard to area, cities with little regard to either area or population, and urban population with little regard to any of the other factors. The North Atlantic States contained one-eighteenth of the area, three-elevenths of the population, three-sevenths of the cities, and nearly one-half of the urban population. The South Atlantic States, including the District of Columbia, contained one-eleventh of the square miles, one-seventh of the people, one-thirteenth of the cities, and about the same proportion of the urban population. However, if the cities of Baltimore and Washington, with a total population of 565,831, were withdrawn, the ratio of urban population at the South to the whole population would be very materially diminished. Probably more people live in Philadelphia to-day than in all the cities of the South Atlantic States, Washington excluded. Were we to carry the inquiry further, we should encounter some striking contrasts. For example, New Jersey, with an area of 7,815 square miles, and a population of 1,443,943, had 20 cities with 780,978 inhabitants, while Mississippi, with an area of 46,810 square miles and a population of 1,289,600, had only three cities with a total population of only 34,098!

These statistics present to our study a new factor in popular education, viz.: the city. What was before said relative to the number of children that can be collected in the same school houses, and the distance of the school

houses one from another and from the homes of the children, applies to the city with more than double force. Here it is that the conditions of numbers and attendance, in connection with other factors, have partly permitted and partly compelled the great improvements that have been made in popular education in the last generation, and that it has been found, in some cases impossible, and in all cases difficult, to introduce into the rural districts, viz., new methods of teaching and control, better organization, classification, and supervision, fuller development both in the elementary grades and in the high school, as well as the city training school, industrial education, manual training, household economy, the kindergarten, and evening schools. These remarks will perhaps sufficiently illuminate the following statistics:—

In 1890 the North Atlantic States together had an urban population of 51.58 per cent. of their whole population, viz.: Maine 19.72, New Hampshire 27.37, Vermont 7.93, Massachusetts 69.90, Rhode Island 78.89, Connecticut 50.58, New York 59.50, New Jersey 54.05, Pennsylvania 40.73 per cent.

The South Atlantic States had an urban population of 16.04 per cent. of their whole number, viz.: Delaware 36.46, Maryland 44.65, District of Columbia 100, Virginia 13.40, West Virginia 7.02, North Carolina 3.87, South Carolina 6.86, Georgia 10.84, Florida 12.02 per cent.

Unfortunately, in large portions of the Union popular education is still further complicated by the race question. In 1890 the white population of the country was 54,983,-890, or 87.80 per cent. of whole; the colored population, including negroes, Chinese, Japanese, and civilized Indians, 7,638,360, or 12.20 per cent. of the whole. For our purpose we may say that one-eighth of the whole

population were negroes. Once more, the colored population was very unequally distributed. The percents of white and colored respectively were as follows:

North Atlantic States	98.4	1.6
South Atlantic States.....	63.2	36.8
North Central States.....	98.	2.
South Central States.....	68.3	31.7
Western Division.....	94.8	5.2

These statistics become still more significant when we analyze the several groups. In the North Atlantic States the smallest per cent. of colored population was in New Hampshire, 0.18; the largest in New Jersey, 3.35; in the South Atlantic States the smallest per cent. was in Delaware, 16.87 (excluding West Virginia, which might more properly be considered as belonging to the South Central group), the largest in South Carolina, 59.87.

The educational significance of these statistics is appreciated by all students of education who have a sociological turn; but it is not appreciated by the public at large, certainly not by the people of the North, and probably not by the people of the South. North of Mason and Dixon's line the race question is hardly an appreciable factor in current educational history. The per cent. of colored children is so small that it is practically lost sight of in the mass. The white and the colored children, where colored ones are found, commonly attend the same school; and so it has been in many cases from the establishment of the public school systems. Some of these States once had laws authorizing school authorities to provide separate schools for colored children, but the last of these, it is believed, have disappeared from the statute book. But at the South the case is far different. Provisions similar to Section 207 of the present Constitution of Mississippi, adopted in 1890, are found in many

of the Southern State Constitutions, viz.: "Separate schools shall be maintained for children of the white and colored races"; and in the States where the Constitution is silent on this point, the law speaks no less decisively. Hence it is that, save executive machinery, there are in every one of these States two systems of public schools, more or less developed, one for white and one for colored children. For the present, this state of things is inevitable, and no doubt it will long remain inevitable. To put it in the mildest form, social conditions impose it upon the South. Now at what cost, both of efficiency and of money, public education must be maintained in these States, words are hardly necessary to tell. In large cities, where the youth of either race are counted by the thousand, a fair grade of education may possibly be kept up in both classes of schools; but in the small cities and villages, and still more in the rural districts, this will be found difficult. Other things being equal, a homogeneous population is favorable to the support of good schools. Accordingly, the small percentage of colored population in such States as New Hampshire and Maine, and the large percentage in South Carolina and Georgia, cannot be overlooked in the study of educational conditions in those States. The presence of a large colored population affects education unfavorably in several ways: it reduces materially the *per capita* wealth that is available for educational and other public purposes; it increases the cost of efficient education, by making necessary two systems of schools; it lowers the general level of intellectual and moral life.

Some of the Southern States have put in their Constitutions provisions like the following, quoted from the Constitution of Kentucky (adopted in 1891), Section 194: "In distributing the school fund no distinction shall be made on account of race or color." This is coupled, how-

ever, with the further provision, "and separate schools for white and colored children shall be maintained;" and some of the States, and perhaps all of them, have made like provisions in their laws. We need not question the sincerity of these declarations; but if, under all the circumstances, the colored race does not suffer in the competition it will be the first time in history that the strong, on so extensive a scale, have put the weak on an equality with themselves. We have not yet discovered how far-reaching were De Tocqueville's remarks about slavery, made in 1830. After observing that in antiquity the master and the slave belonged to the same race, that freedom was the only difference between them, and that, as soon as the slave was emancipated, the prejudice that his previous servile condition had created tended at once to disappear, he proceeded to point out how different it is in modern times.

The greatest difficulty in antiquity was that of altering the law; amongst the moderns it is that of altering the manners; and, as far as we are concerned, the real obstacles begin where those of the ancients left off. This arises from the circumstance that, amongst the moderns, the abstract and transient fact of slavery is fatally united with the physical and permanent fact of color. The condition dishonors the race, and the peculiarity of the race perpetuates the tradition of slavery. The modern slave differs from his master not only in his condition, but in his origin. . . . The moderns, then, after they have abolished slavery, have three prejudices to contend against, which are less easy to attack and far less easy to conquer, than the mere fact of servitude—the prejudice of the master, the prejudice of the race, and the prejudice of color.¹

We come now to another factor. The census-takers of 1890 reported the true valuation of property in the United

¹ *Democracy in America*. Translated by Henry Reeve, Chap. XVIII.

States at \$65,037,000,000. Census Bulletin No. 379 presents many facts of interest relating to this subject, some of which are not a little surprising. The following table shows the distribution of this wealth by groups of States; also the average *per capita* of the population.

	TOTAL.	PER CAPITA.
North Atlantic States.....	\$21,435,491,000	\$1,132
South Atlantic Division.....	5,132,980,000	579
North Central States.....	25,255,915,000	1,129
South Central States.....	6,401,281,000	583
Western States.....	6,811,422,000	2,250

The average for the whole country was \$1,039 *per capita*. The surprising average of the Western Division is explained by the smallness of the population of those States, and the vast aggregate of real property, very much of which is unproductive. But let us return to the two groups of States that have furnished our principal comparisons throughout.

These are the averages of wealth of the North Atlantic States: Maine \$740; New Hampshire \$863; Vermont \$799; Massachusetts \$1,252; Rhode Island \$1,459; Connecticut \$1,119; New York \$1,430; New Jersey \$1,000; Pennsylvania \$1,170.

And these of the South Atlantic States: Delaware \$1,043; Maryland \$1,041; District of Columbia \$1,491; Virginia \$521; West Virginia \$575; North Carolina \$361; South Carolina \$348; Georgia \$464; Florida \$995.

The maximum at the North is found in Rhode Island, \$1,459 *per capita*; the minimum in Maine, \$740 *per capita*. The maximum at the south (excluding the District of Columbia) is found in Delaware, \$1,043; the minimum in South Carolina, \$348. Only three of the Northern States fall below an average of \$1,000; only two of the Southern States reach that average.

No one who is familiar with the enormous cost of a liberal and efficient system of State education at the present time, can fail to see at a glance the educational bearings of these statistics. The amount of money that the States together now expend upon common schools annually is fully equal to twice the largest expenditure of the National Government for all purposes in any single year previous to the Civil War;¹ and if the standard set by some of the States were maintained throughout, this sum would be very greatly increased. It will be found instructive carefully to compare the following table, showing the total expenditure for common schools by divisions of States, in 1890, the expenditure *per capita*, and the average per pupil with the table given above showing the aggregate wealth of the divisions, and the wealth *per capita*.

	TOTAL.	PER PUPIL.	PER CAPITA.
North Atlantic States.....	\$48,006,369	\$2.76	\$23.65
South Atlantic States.....	8,519,873	.96	8.25
South Central States.....	10,796,864	.98	7.59
North Central States.....	62,823,563	2.81	19.96
Western States.....	10,130,815	3.35	34.03

The high averages of the Western States are explained by the sparseness of the population and the high salaries paid to teachers. Thus in Ohio, the average expenditure for school purposes is \$2.93 and the average expenditure for tuition is \$1.60 *per capita* of the population while in California the same items are \$4.29 and \$3. Or, to put in another form, Ohio tuition is \$12.70 per pupil annually; California tuition \$24.98.

A careful inquiry into the cost of public education in cities could not fail to be instructive and interesting. It has already been remarked that density of population favors combination and organization, and so conduces to

¹ Commissioner Harris reports the total common school expenditure for the year 1890-91 at \$146,800,000. See Report, p. 2.

economy of expenditure. This is on the supposition, however, that the range and scale of education remain the same in such populations. But this is not the case. The city demands a longer school year, and a more fully differentiated system. What this means in money-cost, could be very easily shown. The District of Columbia, which is the City of Washington, expends \$3.92 *per capita* of her population for schools, or an average of \$32.14 per pupil; both of which sums exceed the similar items presented by any of the States, save those found in the Western group. The cost of public education, measured both by the population and by the school attendance of large cities, will commonly, or always, be found higher, and sometimes much higher, than that of the States in which the cities are found.

Now, it would be quite too much to say that the cost of education always measures its value, or that the expenditures which the States make for schools always vary directly with the average wealth, or in the same ratio. Educational ideals and traditions assert themselves, not to speak of other material factors. Rhode Island is a richer community than Massachusetts, Connecticut, or New York, but she falls behind those States in her *per capita* expenditure for schools. Virginia is but little behind West Virginia in average wealth, but she is far behind in popular education. The educational expenditures of North Carolina, South Carolina, and Georgia are not commensurate with their educational resources. At the same time, a general correspondence is observable. At the North, Massachusetts, which is second only to Rhode Island and New York in average wealth, leads the other States in relative school expenditures; while Maine, the poorest of these States, stands at the foot of the list. At the South, Maryland spends more money *per capita* for

education than any other State, and she is also richer than any other; South Carolina spends least of all and she is the poorest of all. We may conclude, therefore, that between wealth and schools a relation exists similar to that between population and schools. If such schools as those of Saxony and Massachusetts cannot be looked for in thinly populated States, neither can they be in poor States.

Furthermore the ratio of taxpayers, or of adult males, to the number of children to be schooled, is an important matter. Taking the country as a whole, there are $91\frac{4}{5}$ tax-payers for each 100 children 5 to 18 years of age; but in different sections the ratio varies from $65\frac{9}{10}$ to 100, in the South Central States, to $156\frac{7}{9}$ to 100 in the Western States. In South Carolina there are but 55 adult males to earn the money with which to school 100 children, and 33 of these are colored men. Combining the taxpayer factor and the *per capita* tax, some very striking results are obtained. Dr. Harris informs us that in Montana a contribution of \$5.85 per taxpayer furnishes \$16.02 for each child of school age, while in Texas a contribution of \$6.55 per taxpayer produces a result of only \$4.48 for each child. Mississippi, after raising, per taxpayer, about half what Nevada raises, has only about one-eighth as much as the latter State for each child of school age.¹ The causes that affect the ratio of school children to the adult male population are beside the present inquiry. It is obvious, however, that this is an educational factor of much importance.²

¹ *Report of the Commissioner of Education, 1890-1891*, p. 24.

² Considered in the light of the facts and views now presented, certain provisions in some of the State school laws become extremely significant. For example, the laws of Alabama provided a few years ago: When only one public school is established in a township, it must be so located as to accommodate the largest

The view would be incomplete, even within the scope of the present limits, unless something were said of the portentous subject of illiteracy. The following table shows the per cents of illiterate persons, ten years of age and over, white, colored, and total, in the several groups of States and in the whole country. The base of the several computations is the total number of such persons, ten years of age and upwards, in the several groups of the States and in the United States.

	WHITE.	COLORED.	TOTAL.
North Atlantic.....	5.9	24.2	6.2
South Atlantic.....	19.5	75.1	40.3
North Central	5.9	41.2	6.7
South Central.....	21.6	76.	39.5
Western.....	8.8	33.2	11.3
United States	9.4	70.	17.

number of pupils; but the location may be changed from year to year so as to accommodate those children who were not within reach of the school in previous years. Preference should be given to localities having a schoolhouse already built or a site procured. If more than one school for each race be needed in a township, more may be established by the local school officer. Preference in locating schools should be given to the communities which will supplement the district revenue, with the object of sustaining free schools for so long a session as possible. No more than two schools for either race can be opened in any township wherein the school revenue for said race does not exceed \$50. The school revenue of each township is apportioned as nearly as practicable *per capita* of the probable school attendance. Children may be transferred to schools in other than their own school districts, but they carry their share of the school revenue with them; and if, after deliberation, it is determined not to have one public school for each race opened in a township, and the children of the race, so left without a school, cannot be transferred readily to another school district, their share of the school revenue shall be paid to the parents or guardians of said children; provided said children attend some other school the same length of time.—*Report of the Commissioner of Education, 1885-86*, p. 24.

THE NORTH ATLANTIC STATES.

STATES.	WHITE.	COLORED.	TOTAL.
Maine.....	5.4	31.8	5.5
New Hampshire.....	6.8	23.3	6.8
Vermont.....	6.7	21.3	6.7
Massachusetts	6.1	15.4	6.2
Rhode Island.....	9.6	18.5	8.8
Connecticut	5.1	15.8	5.3
New York.....	5.4	18.4	5.5
New Jersey	5.7	24.4	6.5
Pennsylvania.....	6.4	22.2	6.8

SOUTH ATLANTIC STATES.

STATE.	WHITE.	COLORED.	TOTAL.
Delaware.....	7.4	49.5	14.3
Maryland.....	7.	50.1	15.7
District of Columbia.....	2.7	35.	13.2
Virginia.....	13.9	57.2	30.2
West Virginia	13.	44.4	14.4
North Carolina	23.	60.1	35.7
South Carolina.....	17.9	64.1	45.
Georgia	16.3	69.3	39.8
Florida.....	11.3	50.6	27.8

The District of Columbia presents the lowest rate of white illiteracy found in the table given by the census authorities. Of the States, the minimum per cent of illiterates of the total population ten years of age and upwards is found in Nebraska, 3.1; the maximum in Louisiana, 45.8.

A series of charts that should adequately represent the principal groups of social factors entering into popular education in the United States would be very striking. For example, the following, among other results, would appear:

- I. Density of population per square mile of area.
 - North Atlantic States, 103.2.
 - South Atlantic States, 31.3.
- II. Per cent. of urban population.
 - North Atlantic States, 51.58.
 - South Atlantic States, 16.04.
- III. Per cent. of white population.
 - North Atlantic States, 98.4.
 - South Atlantic States, 63.2.
- IV. Wealth *per capita*.
 - North Atlantic States, \$1,132.
 - South Atlantic States, \$579.
- V. Amount of money raised for schools per tax payer.
 - North Atlantic States, \$9.73.
 - South Atlantic States, \$4.48.
- VI. Amount raised for each child of the school population.
 - North Atlantic States, \$11.13.
 - South Atlantic States, \$3 00.
- VII. Number of adult males to each 100 children, 5 to 18 years of age.
 - North Atlantic States, 114.4.
 - South Atlantic States, 66.8.
- VIII. School expenditure *per capita* of the whole population.
 - North Atlantic States. \$2.76.
 - South Atlantic States, \$0.96.
- IX. School expenditure per pupil.
 - North Atlantic States, \$23.65.
 - South Atlantic States, \$8.25.
- X. Per cent. school population was of the total population.
 - North Atlantic States, 25.39.
 - South Atlantic States, 34.04.
- XI. Number of children enrolled for every 100 children 5 to 18 years of age.
 - North Atlantic States, 70.
 - South Atlantic States, 59.47.

XII. Average number of pupils attending daily for every 100 enrolled during the year.

North Atlantic States, 66.

South Atlantic States, 62.

XIII. Average school term in days.

North Atlantic States, 168.

South Atlantic States, 99.6.

XIV. Illiteracy per cent. of the total number of persons of the several descriptions, ten years of age and upwards, who are illiterate.

	WHITE.	COLORED.	TOTAL.
North Atlantic States.....	5.9	24.2	6.2
South Atlantic States.....	19.5	75.1	40.3

The statistics that have been presented, which are but a few of the many that are available for the purpose, are capable of being combined in many interesting ways. They also suggest many valuable reflections, of which a few will be set down in order.

1. It is very observable that the several social factors enumerated tend strongly to vary directly one with another, thus furnishing a striking illustration of the unity and coherence of society. The statistics also show that efforts which are apparently remote from popular education really affect it very decisively.

2. It is manifest that popular education in the United States as a whole must, for a time, be carried on under unfavorable conditions. Our vast territory, our sparseness of population in large sections of the Union, the physical conditions that will apparently long prevent density of population, and a diversity of races, to say nothing of economical, social, and educational ideals and traditions, must all work to that end.

3. It is quite absurd to compare such a country as ours in respect to education with the States of Germany, say

Saxony or Prussia, where the conditions are so widely different. In the German States illiteracy has been practically annihilated; but in our country it must long remain a serious factor in our civilization. Massachusetts might be fairly compared with Saxony, or the United States with Western Europe as a whole.

4. In the future, one cause that has greatly retarded popular education, will become relatively less and less prominent. From 1880 to 1890 the white population increased 24.67 per cent.; the colored population 13.90 per cent. What is more, it is becoming apparent that the race question will not prove a disturbing influence beyond the present geographical limits, and that within these limits it will tend toward a *minimum*.

5. It must not be supposed that the logic of this paper dooms our country, or any large part of it that shall become permanently settled, to ignorance. Great as are the obstacles that confront us, they are not insurmountable. Even as it is, marked progress has been made in twenty-five years. The National Commissioner well says that, taking all the facts into the account, it cannot but be a matter of satisfaction that public education has made such progress in the South since the war as has actually been the case. Still it is perfectly obvious that many of our States cannot reach and maintain a high level of popular education without great efforts and sacrifices. It is no exaggeration to say that this end cannot be secured without a scale of expenditures which, measured by the existing wealth and wealth-producing population, would exceed anything now seen in this country, or probably in the world.

6. The last observation is that education, under its practical aspects, cannot be discussed as a question by itself. Legislatures, boards of education, school administrators,

and all organs of educational opinion should take education in connection with the whole social and intellectual environment,—population, wealth, commerce, industry, the genius and traditions of the people, and philosophical, religious, and moral ideas. The fundamental idea in an educational system must be the provision of elementary education for the State or locality; but this idea does not exclude special adaptations to particular conditions. The manufactures and trade of New Jersey, the wheat culture of the Dakotas, the mines of Colorado, all become educational factors. Some recognition is extended to these factors now; and as society becomes more complex, particularly as industry and trade become more diversified, this recognition will no doubt become still greater

XVII.

TWENTY YEARS OF PUBLIC SCHOOLS IN ROME.

HE church of S. Clemente, standing on the via di S. Giovanni in Laterano, which leads from the Colosseum to S. John Lateran, is no unfit type of the city of which it is such an interesting feature. Entering the church by a side door upon the street, and passing on through nave, aisles, and chapel (in which last are found interesting frescoes by Masaccio), you descend a wide marble stair to a second church beneath the present one. This old church—so runs the tradition—was built in the time of Constantine the Great, on a spot of peculiar interest to the ecclesiastical mind. It was ruined—so the tradition runs again—in 1084, when Robert Guiscard, coming to the rescue of Pope Gregory VII., burned the public buildings from the Capitol to the Lateran. But so sacred a spot could not be left waste and vacant: a new church, less imposing and of smaller dimensions than the first one, was built before the close of the century, or at least a pope appears to have been elected within its walls in 1099. The builders of the new structure did not take the pains to clear away the remains of the old one; they rather did what Roman builders have so often done at other times and places—they filled in the walls with such material as came to hand, and leveled the surface for the new foundations, which were thus raised many feet above

the old ones. In this way, the church of the Imperial period was buried up out of sight, and in time it was forgotten. Such was the state of facts until 1857, when the prior, Father Mullooly, of the Irish Dominicans, who own the church, in directing some repairs on the upper structure, discovered the old structure. Excavations now laid bare before the astonished gaze of men extensive portions of the earlier church: a nave, two aisles formed by a row of ancient columns made of different marbles, old fragments of art, a small statue of the Good Shepherd, pieces of sarcophagi, and numerous paintings, frescoes, and inscriptions. The needed supports for the upper church were introduced, and the lower one rehabilitated, and now, three times a year, the old Church is illuminated and thrown open to the world; at other times, the visitor to S. Clemente can see it on payment of half a franc. It is a sight perhaps unique in architecture—two churches, both of which may be used for worship at the same time, standing to each other in a relation similar to that of the stories of a single house. But this is not all. One of the lower passage-ways was found to run to a buried shrine of Mithras, the Persian sun-god, whose mysteries were introduced into Rome by the soldiers of Pompey the Great. But more than this, beneath the old basilica there was discovered, in 1867, a still earlier structure, which is supposed to be the house of S. Clement, in which he is said to have built an oratory at a time when it was yet dangerous for a man of prominence at Rome to be a Christian. This house and spot Christian tradition has identified, rightly or wrongly, with the fellow-laborer of St. Paul (Phil. iv: 3), and the third Bishop of Rome. We may therefore say that there are here three Christian temples or houses of worship, the second built above the first, and the third above the

second, belonging to widely different periods in the history of the Church—the Primitive Age, the Imperial Age, and Medieval and Modern Times—the whole series furnishing a good symbol of the great city itself. We habitually say *Rome*, but we might say *Romes*, for really there are many of them. Rome is not so much one city as several cities, superimposed the one upon the other. True of all old cities to a degree, this is peculiarly true of the City of the Tiber. Despite the ruin that time has wrought, you can study it in a series of sections that cut across the whole life of the *locus*, reaching from the days of the primitive shepherds who came from the Alban Hills, by the kings, the consuls, and the popes, to the days of King Humbert. And it is to this fact that Rome owes so much of that interest which, stay as long as one will, seems never to grow old.¹

A man of large humanity visiting Rome is little likely to lose himself in material things or in the past. He cannot become so absorbed in the Rome typified by the oratory of S. Clemente, or by the imperial basilica, or by the present church, as to be insensible to the men about him. Are they not flesh and blood like himself? Do they not comprise one of the Romes, the latest one, and the most practical? The city offers to the visitor its

¹Professor Lanciani observes that the Romans of the Middle Ages took advantage as well as they could of the existing ruins, transforming them, or portions of them, into churches and convents and private dwellings. After mentioning many such cases, he observes: "Nearly one-half of the thousand and more churches and shrines registered in Rome in the fourteenth century were indicated by the titles—in thermis, in porticu, in maximis, in archione, in formis, in palatio, in piscina." "The example set by the clergy in appropriating the above descriptive terms was followed closely by the noblemen of the age," as the Sevelli, the Conti, etc.—*Ancient Rome*, Preface.

present, living, human problems as well as its dead and antiquarian problems; and he must be made of stone, particularly if he has followed on the historic page, or, better still, in the current daily news, that stream of Italian events which bears on from the fatal field of Novara to the occupation of the Quirinal Palace by the King of United Italy. He is rather the more interested in the questions of the day by reason of their historical antecedents. The letters S. P. Q. R. fill you with strange emotion when you see them on a steam fire-engine, a police-station, or a garbage wagon, and still more when you see them blazoned on the walls of a modern schoolhouse. Such, at least, was my own feeling when, in the Autumn of 1891, I found the hours of the fleeting days all too few, used them as best I could, even to dull the edge of curiosity. I shall venture to place before my readers the results of some inquiries and observations made at the time, in relation to one of the most practical of present interests.

The whole subject of Italian education deserves a fuller presentation to the American public than it has yet received; but I shall attempt nothing more than a general view of what was accomplished in popular education at Rome in the twenty years following the downfall of the Secular Power.

Previous to 1870, such a thing as a public school was wholly unknown to the Romans, and the very idea and name were strange. The Pope ruled the city and province, and his civil and political agents were ecclesiastics. Education was wholly in the hands of priests; moreover there was little of it, and this little poor in quality. This is conclusively shown by the astonishing number of adult persons, and particularly of women, who were wholly

unable to read and write. But on the incorporation of the Papal States into the Kingdom of Italy, the system of public education that Italian statesmen and educators had been developing for some years preceding, was immediately introduced, and has since been in operation, subject to such changes as naturally attend a growing system of schools in virgin soil in a time of great educational activity. Although the difficulties to be overcome were great, the results obtained the first year were anything but discouraging, as the following table copied from the official records for the scholastic year 1870-71, will show:

	SCHOOLS.	CLASSES.	EN-ROLLED.	ATTEND-ANCE.
Free City Day Schools for Boys.....	14	44	2,564	2,304
Free City Day Schools for Girls	8	29	1,186	1,049
Free City Evening Schools for Boys	8	30	1,983	1,336
Free City Feast Day Schools for Girls.....	9	15	494	391
Suburban and Rural Day Schools for Boys.....	1	1	40	30
Suburban and Rural Day Schools for Girls				
Suburban and Rural Evening Schools for Boys.....	1	1	24	21
Suburban and Rural Feast Day Schools for Boys....				
Totals	41	120	6,291	5,331

The number of pupils examined in all the schools was 3,324; the number promoted 1,518.

Such was the infancy of the public schools of Rome. If anyone thinks it a small beginning, he must remember that Rome itself was not made in a day. Such explanations as some of the terms call for will be deferred until some further tables have been given. Since that first year, the reports reveal encouraging progress along two lines: The variety of schools maintained, or the range of instruction provided, and the number of schools of all kinds, of classes, and of pupils, which present still larger ratios. The following table will illustrate the progress

that has been made along the second of these lines. The dates occur at intervals of five years, save alone the last interval, which is four years:

SCHOLASTIC		ATTEND-		
YEAR.	SCHOOLS.	CLASSES.	ENROLLED.	ANCE.
1870-71	41	120	6,291	5,331
1875-76	90	437	17,876	11,777
1880-81	155	616	21,311	15,909
1885-86	144	696	24,876	19,245
1889-90	142	624	26,149	19,951

A sectional view of the schools of the city for the last year included in the table is still more interesting.

	SCHOOLS.	CLASSES.	EN- ROLLED.	ATTEND- ANCE.
Free City Day Schools for Boys.....	18	182	8,008	6,519
Free City Day Schools for Girls.....	25	244	9,765	8,069
Free City Evening Schools for Boys.....	9	43	1,179	794
Free City Feast Day Schools for Girls.....	11	51	871	658
Suburban and Rural Day Schools for Boys.....	22	25	695	496
Suburban and Rural Day Schools for Girls.....	13	15	407	308
Suburban and Rural Evening Schools for Boys.....	20	22	506	333
Suburban and Rural Feast Day Schools for Girls...	11	19	96	69
Pay Elementary Day Schools for Boys	1	7	222	189
Pay Elementary Day Schools for Girls.....	2	16	322	256
Pay Kindergartens.....			941	
Free Kindergartens.....			958	
Preparatory Schools for Ornamental Arts.....		1		358
Free Evening Schools for Artizans.....	3		165	152
Primary Courses in Schools for Artisans.....			263	179
Superior Female School Fusinato Erminia Fera...	1		66	64
Professional Female School Via della Missione...	1		698	693
Professional Female School Teresa Chigi Torlonia.	1		159	157
Evening Commercial School for Boys.....		8	180	151
Feast Day Commercial School for Girls.....	1		217	209
Commercial School for Girls	1		74	67
Totals.....	142	624	26,149	19,519

The total number examined was 15,698, and the total number promoted 11,117.

This table is the more interesting by reason of the strange terms that occur. They suggest to us a system of popular education different in some of its features from our own. Still, for the most part, these terms explain

themselves; only two or three call for explanation. The feast-day schools for girls are held on Sundays and other religious days, and they answer a purpose similar to the purposes subserved by the evening schools for boys. It must not be hastily concluded that such schools are necessarily of little value; Church days are very abundant in Italy, as in all other Catholic countries; and antecedently there is no reason why such schools should not be made almost as efficient as the continuation schools of Germany. The suburban and rural schools lie outside of the city walls. One of the most encouraging features of Roman education is the marked prominence of schools for girls. Of the 26,149 pupils enrolled, 11,818 were in boys' schools and 14,831 in girls' schools. The last school on the list was but three years old when the list was made up. It took the girl at the age of fourteen or fifteen and carried her through a three years' course of practical studies, including two or three modern languages, with a view of fitting her for a clerk, or accountant, in business life. The word "professional" must not be taken too seriously. The Professional School for Women in the Street of the Mission is professional only in respect to domestic and industrial arts. It is established in an old ecclesiastical building, not at all convenient for its purposes, and gives instruction to about eight hundred girls and young ladies in literary and practical studies. Reading, writing, composition, geography, arithmetic, drawing, literature, and French are intermingled with dress-making, shirt-making, washing, ironing, cooking, the making of artificial flowers, embroidery of various kinds, and other similar arts. The school has a regular course of study, and it allows to pupils a certain liberty of choice of studies. It is a most interesting school, and is full of promise for the Roman women.

The cost of a system of schools at different times is still another gauge of its growth. The cost of the Roman system at intervals of five years is as follows:

1871.....	579,375 lire.
1876.....	1,064,097 "
1881.....	1,484,662 "
1886.....	1,891,377 "
1889, the last year for which the cost is given.....	2,760,816 "

From every point of view the tables given above are instructive and encouraging; they are just such tables as inspire confidence in an educational statistician, revealing as they do a continuous, normal growth. Much more, these tables would show towards the end some of the columns halting and even falling backward, but the ready and true explanation is the great financial embarrassment of the municipal and national governments in recent years. It will be seen that the number of classes increased more than five-fold, and the number of pupils four-fold, within the period that the exhibit covers. For a New England or Western city of 400,000 people, 624 classes and 26,149 pupils in elementary schools may not be a very large showing, but for Rome, in 1890, it was a most gratifying one.

Failing to find in the annual statement for 1890 a summary of the pupils in the several classes, I give the numbers for a single school. But they must be prefaced with some remarks concerning the Italian method of grading. At the bottom of the scale is found the *asilo*, which answers in a general way to the German kindergarten. Then follow the five elementary classes, marked with Roman numerals, I, II, III, forming what is called the inferior course, and IV and V, the superior course. It may be observed that, in the country schools and in towns where the grading system is not fully carried out, the *asilo* is not found, and most elementary work is done in

the regular classes. These observations will make the following table more intelligible:

ANALYSIS OF THE PUPILS IN THE SCHOOL REGINA MARGHERITA.

CLASS.	BOYS.	GIRLS.	TOTALS
Asilo	81	58	149
I	269	171	440
II	220	91	311
III.....	102	59	161
IV.....	89	39	128
V	54	19	73
Total.....	815	437	1,252

Most of the public schools of Rome are found in buildings erected for other than school purposes. The reason is two-fold: the confiscation of Church property, convents, monasteries, and the like, swept into the possession of the State a multitude of buildings, the kingdom over, that could be used for schools, while the insufficiency of public revenues has prevented the erection of more suitable structures. But some new ones have been built. The School Regina Margherita, beyond the Tiber, is one of the best in the city; it is one of the schools to which visitors are taken, for Italian school officers are as particular about such matters as are our own. It is the school whose pupils are analyzed above, and it must be distinctly understood that some other schools would not make as good a showing. Now, this school is in some features the most admirable school-house that I have ever visited. It is thoroughly modern in all its appointments; it is well constructed in every way, lighted and warmed, while the halls and cloak-rooms are well arranged. The steps and principal flights of stairs are of marble; the rooms are well furnished with maps and other illustrative appliances; there are gymnasiums for

boys and girls, and a bath-room for boys, with a half dozen *douche* baths; the carpenter shop is well supplied with tools and models, and a pretty garden is found in the rear of the building. A picture of King Humbert hangs in every room. The building accommodates from 1,200 to 1,800 pupils, and employs thirty or more teachers. The girls' classes are taught by women, and some of the boys' classes also. A director and directress preside over the two departments, for the sexes are kept separate. The order is excellent, and much attention is paid to teaching patriotism, decorum, and politeness. As I left the building, the severest criticism that I could make upon the school authorities was that they had not sufficiently consulted economy of space and money.

Elementary instruction in Italy does not compare favorably with similar instruction found in the well-educated countries, such as Germany and Switzerland. The compulsory period is only three years, corresponding to the inferior course, and even for that limited time the law is not well enforced. The programme for the Province and City of Rome embraces studies practically like those found in corresponding grades in our own schools—the Italian language, reading and writing, object lessons, poems and prose extracts committed to memory, arithmetic, geography, and history, the last of course of a very rudimentary kind. The superior course embraces more extended instruction in the foregoing studies, and caligraphy, physics, and natural history, free-hand drawing of geometrical figures, rules of measurement, grammar, and literature in addition. The course of the suburban and rural schools is inferior to that of the city schools.

The Roman school year is ten months, beginning the middle of October and closing the middle of August. American and English residents say the instruction in

the public schools is good, and my own limited observation tends to confirm their testimony. The attention paid to patriotism, decorum, and politeness, may again be remarked upon. There were, in 1891, about 600 teachers, 200 men and 400 women. Like Italian salaries generally, teachers' salaries are low. This can be shown by a table. At the close of January, 1892, there were employed in the public schools of Rome and its suburbs 582 teachers, of whom 188 were men and 394 women. The following is an exhibit of the salaries that they received:

MEN.

9 City Principals.....	3,000	lire.*
6 Rural Principals.....	2,200	"
171 City Teachers.....	2,400	"
54 " "	2,200	"
14 " "	1,900	"
31 " "	1,600	"
1 Rural Teacher.....	1,800	"
7 Rural Teachers.....	1,600	"
7 " "	1,200	"
3 " "	720	"

WOMEN.

14 City Principals.....	2,000	"
8 Rural Principals.....	1,800	"
49 City Teachers.....	2,100	"
44 " "	2,000	"
65 " "	1,800	"
74 " "	1,500	"
134 " "	1,200	"
19 " " on trial.....	800	"
2 Rural Teachers.....	1,400	"
6 " "	1,200	"
1 Rural Teacher.....	1,000	"
9 Rural Teachers (assistants), from 360 to 480		"

In Rome teachers' salaries are advanced once in five years until the maximum is reached.

*A franc, worth 19½ cents.

The depreciatory remark that has been dropped above must be understood in a relative sense. Italy has not had the educational experience of New England, of Germany, or of France. Still, the statistics prove most conclusively that a perceptible impression has been made upon the dense masses of ignorance that the old régime bequeathed to Modern Italy. An expressive word is found in Italian educational statistics. It is *analfabeti*, unlettered, illiterate, "unalphabeted," as one might say. Taking the whole kingdom together, the percent of *analfabeti*, irrespective of age, at the dates given, is as follows:

YEAR.	MALES.	FEMALES.	TOTAL.
1861	72.40	83.73	78.06
1871	67.04	78.94	72.96
1881	61.03	73.51	67.26

Ominously enough, Rome does not appear in the statistics previous to the downfall of the Secular Papacy; but, from 1871 to 1881, the percentage of persons in the Compartment of Rome, above six years of age, who could read, was raised, males, from 37.73 to 48.24; females, from 25.93 to 35.39, and the total from 32.32 to 41.84. As late as 1888, 56.30 per cent. of the women, and 32.3 per cent. of the men, entering into marriages were unable to sign their marriage papers and made their marks.

I shall close with a translation of the final paragraph of the course of study prescribed for the Roman schools:

DUTIES.—Without making the subject of their duties a special matter of study or examination, the master should not neglect opportunities for making his pupils sensible of the duties which they owe towards God, towards their neighbors, and towards themselves; seeking above all to inspire them with a respect for justice, and to cultivate such sentiments as constitute the most precious patrimony of civilization, and may conduce to an orderly, peaceable, and progressive state of society. It may be said that there is no branch of teaching that cannot be led in this direction. In

particular, the master must not neglect to avail himself of the lessons in geography and history, in order to make the pupil understand what sacrifices have been required to make the constitution of Italy such as it is to-day, and how Italians can hope for no security but in the maintenance of the national unity.

XVIII.

RELIGIOUS INSTRUCTION IN THE SCHOOLS OF GERMANY.¹

ROM an article now lying before me, written by a well-informed American journalist, I quote the following sentences:

The number of atheists in Germany is very large. The number of skeptics—that is, of persons who have a private religion of their own, the nature of which they consider nobody else's business—is still larger. But larger than all is the class who dislike and despise the clergy, and will on no account permit them to educate their children. All these classes together include a very large proportion of the German culture and intelligence. . . . In no other country have the commercial and professional men got so far away from the Church. They have, in fact, got so far away that to the bulk of them American and English piety is absolutely incomprehensible.²

This is from the secular standpoint. From the American Evangelical standpoint, Germany is the land of materialistic unbelief, of destructive Biblical criticism, of religious formalism, and of spiritual coldness. To the zealous American Christian the phrase "German rationalism" suggests ideas and feelings quite as unwelcome as those awakened by the phrase "French infidelity" one hundred years ago. An educated German theologian and teacher told me in Dresden that he had spent some time in England, and that many men who were there accounted heretics would in Germany be considered orthodox be-

¹ Berlin, February, 1892.

² The Nation, February 4, 1892, p. 81.

lievers. These facts are so well known that they call for no especial emphasis.

It is probable that some persons, looking at these facts from a distance, would attribute them to deficient religious instruction in childhood. To one taking a superficial view of the subject, that would, perhaps, seem the readiest and best explanation. Nevertheless, it would be very wide of the mark. Whatever the causes of the existing state of affairs may be, they are certainly not lack of religious instruction in the formative period of life. In no states in the world is more attention paid to the religious instruction of children than in the German States; in no other Protestant states is so much emphasis laid on the subject in public schools as in those of North Germany.

For example, in Prussia and Saxony education is compulsory on all children from six to fourteen years of age. The laws are so stringent, and their administration is so thorough, that illiteracy is practically annihilated. In the great city of Berlin, there are not as many illiterate men of the proper population as would fill one of the large omnibuses that roll along the street. Still more, the courses of study in the schools include formal didactic religious instruction. In the elementary schools of Prussia four hours a week for the whole eight years is devoted to religion, which is just the time that is given to arithmetic, and is also one-seventh of the time given to all subjects whatsoever. In the other schools, the regimen is quite as thorough. In the girls' high schools the ratio of time devoted to religion to that devoted to all subjects is 20 to 240; in the gymnasia, 19 to 304. In the Saxon Normal Schools it is 23 to 272. In the universities, save in the theological faculty, the subject passes wholly out of sight.

To present the subject still more fully, I give a transcript of the course in religion found in the elementary schools of Saxony. The form is abridged, but the substance is retained. The *Lehrplan* begins with declaring that religious instruction has for its object the development of religious, moral thoughtfulness, the awakening of the corresponding feelings, and a true Christian life—certainly a very noble ideal. This is the course:—

Class VIII., a. Bible history.—The Creation; Abraham and Lot; Joseph; the birth of Moses and his flight from Egypt; the Law given; the golden calf. Birth of Jesus; the wise men; Jesus 12 years old; marriage at Cana; heavy draught of fishes; the youth at Nain; Jairus's daughter; feeding the 5,000; Jesus blessing the children; the Prodigal Son; the Good Samaritan. Early in the year religious narratives from Bible history may be given in advance.

Class VII., a. Bible history.—Classes VII.—V., inclusive, will review the history already given, as well as learn the new lessons: The fall of man; Noah and the flood; call of Moses; Ruth; Ishmael; David and Goliath; David and Saul. The birth of John; flight to Egypt; baptism of Jesus; storm at sea; the rich man and Lazarus; entrance into Jerusalem; Jesus a prisoner, before the council, before Pilate; death, burial, and resurrection.

Classes VIII. and VII., b.—Explanation of verses; verses impressed by repetition by the pupils. In Class VII. instruction given about learning by heart portions of Bible history, or of other history of a religious nature, explained.

Class VI., a. Bible history.—Tower of Babel; Abraham's call; Isaac's marriage; Jacob and Esau; Jacob's flight and reconciliation with Esau; death of Moses; entrance of Israelites into the promised land; Saul king; David anointed; David king; Na-both's vineyard. The apostles chosen; the centurion at Capernaum; Jesus at Bethesda; the ten lepers; the wicked servant; the widow's mite; the blind man at Jericho; Jesus in Gethsemane, his condemnation and ascension.

Class VI., b. Religious themes.—Apothegms, sentences, Bible verses and history; the Shorter Catechism, etc., used in considering them. The duties of reciprocal love, gratitude, trust, obey-

ence, and prayer deduced from God's love; conduct towards relatives, teachers, fellow-students, strangers, the feeble, and the old; modesty, reverence, sympathy, rights of property, conduct towards animals, plants, and artistic work, etc., considered; also care for the health, contentedness, frugality, etc.

Class V., a. Bible history.—Cain and Abel; promises to Abraham; Sodom and Gomorrah; flight and call of Moses; Moses before Pharaoh; departure from Egypt; journey through the wilderness; David's sin. Prophecy and birth of Jesus; teaching and baptism of John; the palsied man; parable of the sower; the Pharisee and the publican; Mary and Martha; the passover and establishment of the Lord's Supper; Jesus a prisoner, before the council, before Pilate, death, resurrection, and appearance after death.

Class V., b.—Explanation of religious themes. Such themes to be taken from the doctrine of the Church, the emphasis placed upon the disposition and actions. Much that was treated in Class VI. to be reviewed; the following themes to be presented: God's works, qualities, and ways; Jesus, the Son of God, as worker of miracles, teacher, and example; value of earthly and heavenly possessions; results of good and evil; knowledge of sin, temptation, repentance, forgiveness, concerning death, and the future life.

In Classes IV. and III. Bible history is to be presented in its connection, as a history of the kingdom of God on earth. In Class IV. the Old Testament is taken; in Class III. the New Testament. In both classes, at the high church feasts, New Testament history relative thereto taken for religious meditation. Knowledge of the Holy Land acquired in connection with Bible history.

Class IV., a. Old Testament history taken in preceding classes reviewed. The offering of Isaac; times of the Judges; David's persecutions; Absalom's revolt; the temple built; the kingdom divided; Elijah and Elisha; the Assyrian captivity; Tobias; the Babylonian captivity; Daniel; return from Babylon.

Class IV., b. Instruction in Catechism.—The first chapter and first article; the commandments; instructions concerning life in parish and State, love of country, family life; true and false pleasures; value of health and other worldly goods; trust in God, con-

tentment, hopeful foresight, absence of sinful desires and dangerous passions, etc.; in a word, whatever can equip the children with a true knowledge of life, inspire them with good designs and a feeling for truth, and strengthen in them right and virtue.

Class III., a. New Testament history continued. — Presentation of Jesus in the Temple; his temptation; conversation with the woman of Samaria; parable of the tares; death of John; the Canaanitish woman; the deaf and dumb man; workers in the vineyard; transfiguration; raising of Lazarus; the angry vineyard-keeper; Zaccheus; the ten virgins; last judgment; Jesus appears at Emmaus; out-pouring of the Holy Spirit.

Class III., b. Instruction in the Catechism.—The second and third articles of the first chapter, and the third chapter.

Classes II. and I., a. Bible knowledge. — The aim is not merely to instruct concerning the Bible, but also, through reading and explanation of chapters, to introduce the contents of the most important books. The finding of books and chapters of the Bible constantly practiced. Continued attention given to the geography of the Holy Land.

Class II., b. The Catechism.—Treatment of the first chapter, first article, and the doctrine of the sacraments after the words pronounced by Jesus at the institution of the Eucharist.

Class I., b. The Catechism.—Treatment of the second and third articles, and the third, fourth, and fifth chapters.

This is the course prescribed for the State Evangelical schools of Saxony. In the State Catholic schools the instruction follows Catholic lines, while children of other churches that are recognized by the State may be taught according to their respective faiths. But the main fact is, that the above course, or its equivalent, is just as compulsory as the courses in geography, in language, or in history. The law leaves no loophole for escape. A father may indeed send his child to a private school, or have him taught at home, but the State follows the child to see that the legal quantum of religious instruction is given. In effect, the policeman stands behind the Bible and the Catechism. How very thorough the enforcement

of the law is in Prussia, is shown by the royal decrees determining authority and responsibility in respect to religious instruction. The following is a summary of the principal of these decrees:—

- (1). Decision as to the character of religious instruction depends principally upon the father.
- (2). It is the father's duty to see that the child receive religious instruction conformable to his faith and condition in life.
- (3). Children born in wedlock must receive instruction in the religion of the father.
- (4). No legal contracts can be made to change the rule *sub 3*.
- (5). In the case of mixed marriages, agreements made before or at marriage to train the children in the religion of the mother have no legal force.
- (6). If father and mother, however, agree as to the religious instruction their children are to receive, no third person has authority to interfere.
- (7). At the death of the father, the religious instruction in his faith must be continued.
- (8). No attention is to be paid to death-bed conversions to another faith.
- (9). If, however, the child has received, the last entire year before death of father, religious instruction according to the mother's faith, this instruction must be continued until the said child be fourteen years of age.
- (10). After the death of the father, it becomes the duty of the court for guardianship (*Vormundschaftsgericht*) to see that the child receive religious instruction according to law.
- (11). Children born out of wedlock receive, until 14 years of age, religious instruction according to the faith of the mother.
- (12). They who assume care of a child abandoned by his parents acquire the rights of parents, and, therefore, decide as to the character of religious instruction until said child be 14 years of age.
- (13). The same rule holds good in the case of adopted children.
- (14). When 14 years of age, children can decide for themselves as to the religious denomination to which they will belong.
- (15). Before 14 years of age, no religious denomination can receive a child or permit an open confession of faith other than that to which said child belongs by law.¹

¹ Parsons: *Prussian Schools through American Eyes*, pp. 21, 22.

Two cardinal ideas underlie these decrees. The first is that every man belongs to some church, and the second that his children, up to the age of fourteen years, belong to the same church. The first of these ideas is a survival from the time when every nation or state had one national church or religious establishment, to which every member of the state belonged just as naturally and necessarily as he belonged to the national government. In other words, the State and the Church were simply the secular and the religious sides of the same society. The Protestant Reformation, by destroying religious unity in Germany, compelled the recognition of a plurality of churches, and demolished the theological basis of the State-Church theory, but it did not destroy the idea that every man belongs to some church, that his children come into the world wearing the same church ticket that he wears, and that the state must see that they are taught the doctrines of his church. Of course, if the state is to teach religion in confessional schools the "ticket" plan is the only one that can be practically followed.

To make it possible to carry out these decrees, the schools of cities and towns where the conditions admit of it are organized on a confessional or church basis. The religious instruction given in the mixed schools of the rural districts is governed by the religion of the plurality of the children in attendance, or of the families to which they belong. Still, where twelve children in such school demand it, or their parents for them, they receive religious instruction conformable to that of the church to which they belong, and, to make this the more easy, schools are united for this purpose wherever it is convenient to do so. The following table will show how the system worked in Prussia in 1886 :

	NO. OF SCHOOLS.	TEACHERS.	PUPILS.
Protestant	23,122	41,539	2,993,852
Catholic	10,061	19,632	1,613,497
Other Christians	12	31	870
Jewish	318	407	13,270
Mixed	503	3,141	216,758
 Total	 34,016	 64,750	 4,838,247

In 318 of the mixed schools there were special religious teachers; 54,950 Catholic pupils attended Protestant schools, and 25,878 Protestant pupils Catholic schools. It must not be supposed, however, that we are here dealing with Church schools; on the contrary, these are all State schools, but State schools divided with reference to the kind of religious instruction given in them.

But we are here concerned with the moral results of the course. The main question is, how the present religious condition of Germany can exist side by side with such a regimen of religious instruction as is found in the schools. This is one of the most important practical questions that religious men in Germany, and particularly teachers and preachers, can possibly ask. Still, it may be doubted whether many of them often do ask it, if indeed, they ever do. It is an important practical question for Englishmen, and particularly of the Established Church. It is important also in the United States, but less so than in the other countries just named. It is a question well worthy of consideration at the hands of all those who are engaged in the work of religious and moral training. If a full and conclusive answer cannot be given, a partial one may not be without value. All that I can do is to state some of the principal considerations that would enter most deeply into a thorough treatment.

It should be premised that the failure is not due to any lack of thoroughness in the course of study, or to any laxity in the directions given to teachers. The reader must be impressed by that fact. The course begins with stating the objects of religious instruction, viz.: To promote religious, moral thoughtfulness through Bible history and the teachings of the Church, to make religious truths and moral ideas clearly understood, to awaken the corresponding feelings, and thereby to lay the foundation for a true religion and a good moral life. The Bible narratives chosen by the teacher are to be of religious purport. The teacher is fully to explain the lessons, and the pupil is to commit verses and passages of Scripture to memory. The moral lessons are of the most practical kind, and are to be deduced from religious principles. The Catechism is introduced. It is declared that with the attainment of a clear understanding of a doctrine, comes the awakening of a religious feeling. Religious meditation is to be secured, and the religious element in the commandments emphasized. The Bible lessons are to be explained in connection with the songs that are sung and the parts of the Catechism that are taught, and are also to be associated with Sundays and religious holidays. The course is marked by the skill shown by the German pedagogists in all similar work, and the more carefully it is studied the more, pedagogically speaking, it will be admired. Why, then, is it so largely nugatory and fruitless of results?

The first fact to be considered is the Established Churches of the German States, Protestant and Catholic. There are also certain religious organizations that are called "recognized," which means that they are legal persons, entitled to own property and to carry on public worship, subject only to the general laws of the land. In

Prussia these are the separatist Lutheran and Reformed Churches (consisting of those Lutherans and Calvinists who have never come into the State Protestant Church resulting from the union of 1817), and the Jews, the Baptists, the Mennonites, and the Moravians. The non-recognized Churches are not legal persons, and can own property and hold public worship only under special arrangements. Here come in the Methodists, the Irvingites, and other small sects. Not wishing to encourage sectarian divisions, the government is slow to recognize religious societies. The recognized and non-recognized groups are few in number, and the great establishments control the principal religious forces of Germany.

The German religious statistics, unlike our own, are given in great masses. For 1890 they stand as follows:

Protestants.....	31,026,810
Roman Catholics.....	17,674,921
Other Christians.....	145,540
Jews.....	667,884
Unclassified.....	13,315

The State Churches have the limitations that always surround such bodies. These are reliance on the government, and lack of individual initiative; the relegation of Church work to the clergy and the absence of an active lay element, and particularly of a woman element; the supremacy of the State; the tendency of religion to lapse into routine officialism,—in a word, pronounced tendencies towards a dead indifferentism in faith and cold inertness in religious life. In England the Established Church is vital and active, largely because it is constantly stimulated by the powerful influence of Nonconformity, while the revenues of the Church are by no means sufficient for its purposes and it is compelled to appeal constantly to the voluntary principle. The case is very dif-

ferent in Germany: Nonconformity is not an important factor in religious affairs. The ministers of the Evangelical Church are appointed by the State, and to a great extent paid by it, a dependence that tends to create anything but real fitness for their work. Preaching is mainly expository and doctrinal, tending to dulness, and not taking much hold of the heart and the life. While it must not be supposed that there are no religious men and no piety in Germany, it is still a fact that the splendid liberality and activity shown by the voluntary churches of America and England are practically unknown. For instance, there is not a parish in Berlin belonging to either one of the Established Churches that would, for a moment, think it could build a church for itself. Is it not the business of the State to build churches? Accordingly German piety is about as incomprehensible to an American as American piety is to a German.

Again, since the two great Churches are a part of the government, and they share the opposition that is made to the government. In the eyes of the discontented classes, ministers and the Church are no better than the rest of the State machinery. Religion necessarily becomes a part of politics. The Catholics and Conservatives are strongly religious, or rather ecclesiastical, while men of progressive views in politics commonly tend more or less to liberalism, unbelief, or atheism. The current socialism is almost wholly atheistic.

The bearing of these facts on the sterility of the religious instruction given in the schools should be evident to the dullest mind, at least outside of Germany. To the Socialists, for example, the teachers who give the instruction in theological dogmas and Bible lessons are teaching what they consider the most odious part of the system of oppression under which they groan. They

rebel at the thought of having such lessons forced down the throats of their children with the policeman's sabre.

Secondly, the unbelief, indifferentism, and inertia that are so characteristic of German religion also mark the teaching of religion in the schools. Probably some immoral persons find places and hold places in the schools; far larger is the number who are rationalistic or atheistic in their opinions; while largest of all is the class that, whatever their formal religious status may be, have no real heart in this part of their work. The grand result is that, while there are many really religious teachers, and much excellent teaching, the system, as a whole, tends to dull routine and perfunctory officialism. Not long ago a Jewess advertised in one of the Berlin papers for pupils as a private teacher, putting in the list of her qualifications this one—that she could teach any religion that might be desired! Even a pious man may be forgiven for shaking his sides at such monstrous absurdity, but it is a legitimate result of the State's attempting to teach religion after the German fashion. To the majority of pupils "religion" becomes merely a study, like arithmetic or geography; they "take it," as they take mathematics or science; and although they may acquire some facts in so doing, and so receive some mental enlightenment, their hearts are not warmed or their wills strengthened thereby. The Saxon course states: "With the attainment of a clear understanding of a doctrine, comes the awakening of a moral, religious feeling." This is so unmistakably erroneous that the Saxon pedagogists should not have fallen into the error.

Lastly, the connection between teaching dogmas, or abstract lessons of any kind, and real life is by no means as intimate as the majority of men suppose. If there are any lessons in the world that will wither under mere routine or

formal teaching; if there are any lessons that, to be fruitful, must be touched by the influence of a warm heart and a good life, they are morals and religion. The concrete precedes the abstract; example is better than precept; life is more than theory. Still, these facts are in practice constantly ignored or forgotten. In the face of a uniform experience that character is formed and life shaped by personal influences far more than by formal didactic instruction, multitudes of men constantly assume that the catechism, the lesson-leaf, the sermon, and the Bible are the great factors in moral and religious training.

Not very long ago it was commonly thought that the public school was a powerful moral safeguard of the individual and of society. And so it is. Still, we are coming to see that nothing is easier than to exaggerate the moral value of school studies. The fact is that the ethical bearing of general studies upon men is by no means as direct and powerful as some have been wont to think. Something more than the spelling-book and the arithmetic is necessary to make good men and women. A further mistake that we have yet to correct is this—that we have also overestimated the spiritual value of moral and religious ideas, simply as intellectually apprehended and received. There can be no greater pedagogical mistakes than the assumptions that the intellectual perception of a doctrine or truth is necessarily followed by the corresponding feelings, and that the feeling when aroused necessarily manifests itself in conduct. Sound doctrine is indeed important; but all history bearing on the subject tells us that it is futile, and even absurd, to send a man into a pulpit or a school to preach to men or teach them, no matter what the doctrine may be, unless he is morally superior to his audience or class.

I am far from saying that religious instruction in the schools of Germany is not productive of good results. Undoubtedly, it is productive of such results. Perhaps, in the existing state of things, the course in religion is indispensable. But it is evident that it is not accomplishing the results that its authors expect from it, and that it never can accomplish them. This has been practically admitted, at least as to the first statement, by the Prussian government itself. The Emperor-king and his ministers are now seeking to carry through the Diet an educational bill that contains features relating to religious instruction in schools besides which those enumerated above are mere child's play. Its fate is doubtful, but the great argument that is urged in its favor is that more stringent measures are necessary in order to check the rising tides of atheistic socialism. Count Von Caprivi, the Prime Minister, has said in debate: "The question before us is not one of Protestantism against Catholicism, but of Christianity against Atheism. There is a spirit abroad which makes itself daily more and more felt, and which is peculiarly visible in the schools of Berlin—the spirit of Atheism. With a purely moral education not founded on Christian principles, we would have but little success with the children of the people. We have before us a struggle with the spirit of unbelief, which is not necessarily identical with the social democracy. In face of this great danger, we desire at least to erect a barrier. Do not, I pray you, by agitation excite the masses, who are not capable of judging on this question. In face of this danger, Germans will learn to live together in peace." We shall soon see whether the bill passes, and if it passes we shall see later whether the remedy proposed cures the disease, or, as is far more probable, still further aggravates it.

There is, to be sure, another side to the question. Omitting the Catechism and the more dogmatic parts of the Biblical teaching, the Saxon course would be an admirable one in many respects to introduce into the schools of the United States. The argument that would justify it, however, would relate to history and literature quite as much as to morals and religion. The Bible is a great book of literature and history. It is the classic of the most cultivated parts of the world. It has furnished to letters a vast number of themes and an enormous amount of thought-material and inspiration. Its geography, scenery, events, and language have passed, literally or symbolically, into the vocabulary of Christendom. None save those who have made it the subject of somewhat careful study, are aware how far the very forms of our thoughts, as well as the thoughts themselves, have come to us from the Bible. In an historical and literary point of view, it is therefore little less than a calamity that the youth of the land should grow up, as so many of them are now doing, in comparative ignorance of its contents. There is indeed no good reason for rating highly the value of such formal religious instruction as can be given in public schools. Still, the ethical value of such a course as the foregoing, with the emendations suggested, would be something, perhaps considerable, and particularly if teachers, not making this element obtrusive, should leave the lessons to carry their own morals. Whether or not, under existing conditions, such a course could be successfully introduced, is quite another question.

XIX.

EDUCATION IN SWITZERLAND.¹

HE month of August witnessed some notable Swiss anniversaries. On the first of the month the Confederation celebrated the sixth centennial, and on the fifteenth the City of Bern the seventh centennial of its foundation. Everybody who paid serious attention to these celebrations must have reflected that the position of Switzerland in history, and in the current life of the world, is much more important than her territory, her population, and her natural resources would demand, or perhaps even justify; and the time has not too far gone by to offer some remarks upon one of the causes that have produced this disparity and so tended to make the celebrations significant.

The break down of the Roman Empire left considerable culture in Switzerland that the floods of barbarism never wholly swept away. The Irish monks, who were the evangelists of education as well as of religion, visited this country, as they did so many others of Western Europe. St. Gall, so famous in the history of both letters and piety, was founded in the eighth century by Columban's disciple of that name. Switzerland also received her share of advantage from the liberal educational ideas and policy of Charlemagne, of whose vast empire it was a part. And all along the way from that time to this, century by century, we find interesting facts in the history of Swiss culture, as the humanistic training of Zwingle, the Swiss

¹ Geneva, October, 1891.

reformer and friend of Erasmus, and the founding of the Universities, which have borne such an honorable part in the work of liberal education. Still, we find nothing that gives the Swiss an exceptional educational standing until we near the close of the last century. Rousseau, citizen of Geneva and author of "Emile," quickened educational thought, especially on the French side of the Confederacy. But it was Pestalozzi who really ushered in the new era. Seizing the bold ideas that form the heart of the sense-realistic school of pedagogy, this great reformer made Stanz, Burgdorf, Neuhof, and Yverdon classic names in the annals of human culture, and gave popular education an immense impetus, not only in Switzerland, but all over the civilized world. Fröbel, with all his mysticism, stands for that enlargement of the same ideas which have become so potent a factor in the kindergarten methods, and Father Girard, "The Catholic Pestalozzi," to whose noble memory a statue has been dedicated at Freiburg, while not the equal of the other two, completes the trinity of great Swiss pedagogists. Withal, far-seeing statesmen have given the thoughts of these great thinkers practical realization in state policy. No country is more thoroughly committed to public education of the highest order. It should also be observed that the more progressive Cantons have recently reconstructed their school systems, introducing many foreign ideas.

Education in Switzerland is a matter of both Federal and Cantonal concern. These are the provisions of the Federal Constitution in regard to the subject:—

The Confederation has a right to establish, besides the existing Polytechnic School, a Federal University and other institutions of higher instruction, or to subsidize institutions of such nature.

The Cantons provide for primary instruction, which shall be

sufficient, and shall be placed exclusively under the direction of the secular authority. It is compulsory and, in the public schools, free.

The public schools shall be such that they may be frequented by the adherers of all religious sects, without any offense to their freedom of conscious or of belief.

The Confederation shall take the necessary measures against such Cantons as shall not fulfill these duties.

A delay of five years is allowed to Cantons for the establishment of free instruction in primary public education.¹

The constitution of 1848 authorized the foundation and maintenance of a National Polytechnic School and a National University. The first was founded in 1855, one of the foremost in the world, but no steps have been taken to found the second. The Polytechnic School met an actual want; while the existing Cantonal universities were not only sufficient to meet the needs of the country, but they were supported by interests too powerful to permit the establishment of a formidable competitor. It will be seen that the Swiss constitution, unlike our own, which is wholly silent upon the subject of education and schools, declares that the Cantons shall make primary instruction sufficient, compulsory, and free. And yet the states-rights principle is vigorous. The declaration that the secular authority shall control the public schools, and that they shall be such that they may be attended by the adherents of all religious sects, are explained by the religious divisions of the country, past and present, and by the growth of the secular spirit. The schools are thoroughly secularized. No ecclesiastical or clerical person is allowed to teach in the State schools.

The provision in regard to compulsion is first found in the Federal Constitution of 1874, but it had appeared in the constitution of Bern as early as 1846. Any one who

¹ Article 27, and Temporary Provision, Article 4.

has observed the difficulty with which compulsory education is made effective, particularly in democratic states, and who also reflects on the manifest disadvantages that a federal government attempting that task must encounter, cannot help asking what steps the Swiss government has taken in this direction, and what success has attended them. The fact is, it has never attempted directly to enforce this clause, but has left coercion mainly to the Cantons. This is partly because the Cantons have shown a commendable zeal in the matter, and partly because it would be very difficult to procure the necessary Federal legislation in the first place, and still more difficult to enforce it afterwards. Indirectly something is done, a good deal, in fact. The laws in regard to the employment of children in certain kinds of manufacturing establishments, like similar legislation in England and America, have an educational bearing and effect. But, more than this, the constitution binds every Swiss citizen who is not disqualified to perform military service, and the Federal law creates an effective system of instruction and drill. The existing law requires a literary as well as a medical examination of all young men on attaining their majority, thus creating a strong safeguard against popular ignorance. Mr. Vincent puts the case very mildly in his late work on the Swiss Government when he says that by "examinations the state of primary education in the various Cantons is exhibited, and by the publication of the statistics an honorable rivalry in this field is encouraged."¹ He should have added that such recruits as are found wanting, are required to make up their deficiencies, and that special instruction is provided for this purpose. In 1882 it was proposed to add a Secretary of Education to the number of secretaries constituting the

¹ State and Federal Government of Switzerland, p. 92.

Federal Executive; the people, on its submission to them, voted it down, and, such is the opposition to strengthening the Confederacy at the expense of the Cantons, there is little probability of the attempt being renewed.

The annual reports of the educational examinations of recruits are interesting documents in more respects than one. The report of the examinations held in the Autumn of 1890, now before me, contains 40 quarto pages. In addition to the statistical tables showing the results throughout the Confederation by Cantons and districts, we find considerable valuable discussion, and a double-page chart showing the larger facts in color. Quite marked differences in the education of the people appear. The best Cantons compare favorably with the States of North Germany. While the German and the French Cantons, other things being equal, are on the same footing, the Italian Cantons fall far into the rear. The contrast between the Protestant and the Catholic Cantons, is pronounced. Not only do the Protestant Cantons, as a rule, surpass the Catholic, but in the latter the educational standard is higher in the proportion that they have been touched by modern progressive influences. Zürich, for example, makes an excellent showing; but that Canton, whose educational institutions date from the reign of Charlemagne, contains the largest city in the Confederation, and, next to Geneva, has the densest population. Protestant controversialists, noticing the general contrast between the two classes of Cantons, have been prompt to ascribe it solely to religion. But it should be observed that the Catholic Cantons are commonly the more mountainous, the less thickly populated, the poorer, and the more backward. These facts should not be separated; they afford an excellent example of the interaction of social forces, or of the mutuality of cause and

effect. Change any one of these factors, and you change all the others.

The Educational Year Book for 1889 shows 21,689 pupils in kindergartens, 425,012 in primary schools, 34,817 in continuation schools and schools for recruits, 27,254 in secondary schools, and 10,845 in private schools of various kinds. The total *Volksschulstufe* was 547,928 pupils. The continuation schools (*Fortbildungsschulen*), held mainly on evenings and Sundays, afford pupils who have left the primary schools an opportunity to carry their studies two or three years further. The same year there were in the so-called middle schools—normal schools, gymnasia, industrial schools, etc.—19,182 students, and in the higher institutions 3,611. The grand total is 568,721. How many of these are foreigners cannot be told; but were the necessary subtraction made, the showing would still be a striking one.

Equally creditable to the Swiss are their educational expenditures. The Cantons, including the Federal appropriation for the Polytechnicum, appropriated 12,972,262 francs; the local authorities (*Gemeinden*), 17,103,814 francs, or a total of 30,076,081 francs. Of this sum nearly 19,000,000 francs went to the primary schools, and something more than 4,000,000 to the secondary schools. In other words, primary education, the country over, cost 40 francs, and secondary education 151 francs, to the scholar. Such Cantons as Uri, Schwyz, and Unterwalden-Nied expend but 3 francs per inhabitant for education; but Zürich, Shaffhausen, and Basel 15, 16, and 24 francs respectively. The small expenditures go, of course, with the sparse and small populations. The average for the Confederation is a little more than 10 francs per inhabitant.

It will be seen that the scope of Swiss education is modern and comprehensive. Particular attention is paid to the practical applications of knowledge, as the technical, polytechnic, and industrial schools show. The schools of horology, of which there are several, illustrate how a leading industry affects education. The noble Polytechnicum at Zürich has a hundred professors and instructors and 992 students. The seven higher institutions have 434 professors and instructors and 3,554 students and auditors.

Perhaps the force of the presentation will be increased by narrowing the view. Basel-Stadt, which is co-extensive with the City of Basel, contains 10 square miles and a population of 74,247 souls. In 1889 it had 11,405 pupils in *Volksschulen*, 2,376 in middle schools, and 455 in higher schools, making a total of 14,536. She expended for education the same year 1,804,108 francs, or about \$360,000. Nor does this take into account what Basel contributes by the way of the Federal treasury. Let it be particularly noted that this little State supports a celebrated university, having four faculties, 70 professors and instructors, and more than 450 students. Geneva, also, which has no doubt exercised a wider influence than any other city of its size since Athens, makes a showing that is very difficult to parallel.

Pains are taken that teachers shall be qualified for their work, and that their work shall be well done. Every teacher must have a normal-school training. A diploma from an authorized school of this rank is a certificate to teach in the elementary schools. Government inspection is universal, extending to private schools as well as public. Bern, with 100,000 children in her primary schools, employs twelve inspectors, who are appointed by the Cantonal council on the nomination of the minister of education.

As there are 25 Cantons and half-Cantons, each with its own independent government, there are 25 school systems. With many divergencies, the systems of the best Cantons, like our best States, tend to uniformity of organization and machinery. Some Cantons have councils and ministers of education; some have councils and no ministers, and some ministers and no councils. The ministers, where they are found, are always members of the Cantonal Executive Councils; for it must be remembered that in Switzerland there are no presidents and governors. The teaching body has a decided influence upon educational administration, but the minister is usually a politician and not a teacher. Books and courses of study are uniform throughout the Canton.

The schools are immediately controlled by the Cantonal government, or by boards similar to our boards of education; but both councils and boards, particularly in the more democratic Cantons, are closely limited in power by the popular assemblies. Teachers are sometimes chosen, as in Geneva, by the executive council; sometimes by the local board, as in the City of Bern; sometimes by the people themselves, as in many rural districts. In Bern the election is for six years. A high authority tells me that in this Canton the teacher's tenure is good when once he is elected, but that first elections are sometimes controlled by other considerations than fitness. For example, he says when the people elect, the teacher is pretty apt to belong to the church of the majority. This gentleman condemns the popular elections of teachers, as he does also the furnishing of books by the State, which is sometimes done, and the teaching of more than one language in the primary schools.

Measured by American standards, salaries are low. No elementary teacher in Bern receives as much as \$1,000,

and many receive less than \$200. However, a majority of teachers are furnished a house, a piece of ground, and wood, in addition to the salary set down in the list. Then the preference for male teachers is strong throughout the Confederacy; even in the primary schools there are 6,180 male teachers to 2,970 females. In the secondary schools the respective numbers are 1,168 and 205. In the primary schools, at least, no difference is made in salary on account of sex. It must be remembered that the whole scale of incomes and expenditures is low in Switzerland as compared with the United States. Members of the Federal Legislature receive but 20 francs a day; members of the Federal Executive but 12,000 francs a year. The maximum university salary is 12,000 francs, the minimum 300 francs, while the average ranges from 3,156 francs in Zürich to 4,580 in Basel.

Such is an imperfect survey of one of the groups of facts that rendered the August anniversaries important events. Switzerland has an area of about 16,000 square miles, and a population of about 3,000,000 souls. Together, Massachusetts, Connecticut, and Rhode Island are somewhat less in size, and somewhat more in population. An educational parallel between the Confederacy and the three States would be extremely interesting. This certainly would appear in both cases, that the essential elements of greatness in States are not material but spiritual.

XX.

THE BACKWARDNESS OF POPULAR EDUCATION IN ENGLAND.¹

WO facts stand out with prominence in modern educational history. The first is that England has been very slow to enter on that general movement towards universal education which is one of the most significant facts of recent times. The other is that England has also been very backward in respect to the organization of such education as she has had. To an extent these are but different aspects of one grand fact. Had the efficiency of public education at any time equaled that of Scotland, Germany, the United States, or France, it would have compelled more order and system; while, on the other hand, a properly organized and administered system would have carried instruction to a far greater height. It is not easy to say in which particular the inferiority of England is the more marked. Whatever the truth may be, it will conduce to a good understanding of the state of things that long existed, and that has not yet been wholly changed, to state some of the more important causes that produced it.

The first thing to be considered is the English Church. The Protestant Reformation gave education and schools an enormous impulse. "The Reformed religion rests on a book, the Bible," De Laveleye has said. "The Protestant therefore must know how to read. . . . Cath-

¹London, May, 1892.

olic worship, on the contrary, rests upon sacraments and certain practices, such as confession, masses, sermons, which do not necessarily involve reading.” In England alone, of all the countries where it prevailed, the Reformation marks no real educational era. Much of the explanation of this anomaly is found in the character of the Anglican Church and in the manner of its establishment. The Church of England was a compromise. Anglicanism lays less emphasis than other Protestant bodies upon preaching and teaching, and more upon rites, ceremonies, and tradition. Its appeal to the æsthetic nature is more direct and powerful, but its appeal to the intellect is less so. Accordingly, high popular intelligence is less important. Parliament is supreme alike over creed and canons. Church government is from above, not from below; the laity have nothing whatever to do with the appointment and the installation of their ministers. Furthermore, the English Church originated largely in State questions and policies, and its form was shaped far more by the Crown and Parliament than by the people themselves. Anglicanism did not touch the springs of the national life in England as Calvinism and Lutheranism did in Scotland or in Northern Germany.

Dissent, however, prevailed from the very beginning, and tended to increase as time went on. As a rule, Dissenters have taken far more interest than Churchmen in the education of the masses, but the constantly multiplying ecclesiastical and theological divisions, begetting different educational ideas, as well as great sectarian strife and bitterness, have tended powerfully to retard the erection of a State system of schools.

The second fact to be considered, and one closely connected with the one just dismissed, is the original genius of English society and the English government. This is

aristocracy. Until recent years the freedom of which England so well boasted rested on an aristocratic rather than a democratic basis. It was the great barons and the Church dignitaries who resisted John and wrung from him the charter of 1215. Afterwards the middle classes were slowly admitted to a participation in political affairs; but it was not until the Reform Bill of 1832 that the center of gravity in the English system began to shift, and even then it shifted so slowly that the nation was not democratized until the great Enfranchisement Act of 1867. And still there is no other country in Europe where education is so distinctly organized on class lines.

The third fact, which lies behind and conditions both the others, is the character of the English mind. It is common for Continental writers to berate Englishmen for their practical mental habit and their lack of ideas. M. Guizot, for example, said whoever observed with some degree of attention the genius of the English nation, would be struck, on the one hand, by its steady good sense and practical ability and, on the other, by its want of general ideas and of elevation of thought on theoretical questions. M. Taine depicts this aspect of the English mind at much greater length and in much stronger language. "The interior of an English head," he says, "may not unaptly be likened to one of Murray's Handbooks, which contains many facts and few ideas; a quantity of useful and precise information, short statistical abridgments, numerous figures, correct and detailed maps, brief and dry historical notices, moral and profitable counsels in the guise of a preface, no view of the subject as a whole, none of the literary graces, a simple collection of well-authenticated documents, a convenient memorandum for personal guidance during a journey." And again: "The word 'to organize,' which dates from the Revolu-

tion and the First Empire, exactly summarizes the faculties of the French mind, the success of well ordered and distributive reason; the vast and happy effects of the art which consists in simplifying, classifying, subtracting.¹

The Germans are even less appreciative of the English mind, or at least of English philosophy, than the French. The pragmatical mental habit of the English, they make a constant gibe. "Bacon's name," says Max Müller, "is never mentioned by German writers without one provision, that it is only by a great stretch of the meaning of the word, or by courtesy, that he can be called a philosopher." The Englishman retorts that the Germans are dreamy and mystical. Matthew Arnold was always lamenting the small interest that his countrymen took in ideas.

Perhaps the Continental writers, as M. Taine, indulge in some exaggeration; but there can be no doubt that they lay their fingers on characteristic features of the English mind. The typical Englishman delights in facts and precedents; he is strongly attached to things accomplished, but extremely shy of things unaccomplished; he has no love of comprehensive theories, general views, and abstract principles; he dreads innovation; he has great talent in patching up old systems, but no talent or liking for setting up brand new ones. Lord Melbourne was a typical Englishman; he belonged to the Whig, or so-called Liberal, party; and one of the characteristic anecdotes of him is that, when Prime Minister, he invariably met the innovators who came to him with novel ideas and schemes of reform with the question, "Can't you let it alone?"

The national genius is seen in all the characteristic features of England. It is the country of incongruities,

¹ *Notes on England, XXIX. Characteristics of the English Mind.*

contradictions, solecisms, and legal fictions. No country better illustrates, in the social and political sphere, the continuity of evolution, the persistence of growth; in no country are there fewer traces of the theorist, the doctrinaire, the codifier, or the system-maker; in no country is a knowledge of history more necessary to enable one to understand the existing order of things. In fact, it is almost impossible to understand what *is* without understanding *how it came to be*. Mr. Fyffe, speaking of the Universities, remarks:

Observers accustomed to the system and regularity of centralized states on the Continent have often noticed with some surprise how in England institutions of an old, and even an obsolete, type are allowed to continue in existence after others more in accordance with the needs of the time have sprung up by their side. Revolution has never cleared the ground; corporations are powerful; the public indulgent or illogical. And so it happens that while the creating or reforming work of an epoch of change abroad may be expressed almost by figures and dimensions, in England we have to tell how one feature or another of some venerable but narrow edifice is made tolerable for modern use; how the designs of a middle time are developed or enlarged; and in what form the workmen of our day have in their turn added to the inheritance of the past. True for English institutions generally, this is peculiarly true of our Universities.¹

“Revolution,” used by Mr. Fyffe, is a peculiarly suggestive word in this place. At present the tendency of historians and social philosophers is to belittle revolutions and almost to abolish them; “evolution” and not “revolution” is now the vogue; “institutions are not made,” we are told, “they grow.” Such is the tendency of thought, and it is partly the effect and partly the cause of the wide use of the historical method. It may be questioned whether this tendency is not over-strong; whether

¹ The Universities. In T. H. Ward's *The Reign of Queen Victoria*, Vol. II., p. 288.

the new school is not too much rounding off the corners of the old "epochs," "periods" and "ages;" whether there are not facts that are not held by the flowing curves of the popular writers on "the unity" and "the continuity of history." However this may be, Englishmen have more reason, at least historically, for adopting the new view than men of the Continent. It is a long time now since the foot of a hostile soldier has touched English soil; a long time since a battle has been fought within her borders; a long time since the State has been torn by such feud or faction as required force for its suppression. Society has not been disturbed by violent convulsions since the Civil War; the course of history has been one of orderly development; which, again, is partly the result and partly the cause of the prevailing mental habit. The Restoration was peacefully effected; the Revolution was accomplished on the legal theory that nothing had been done but to elect a new king in the room of the old one who had abdicated the throne; Reform has made its way from one victory to another, not indeed without strong opposition, but without armed resistance. Still the Revolution of 1789 stands for more than words can tell in Europe, and most of all in France. It is not an accident that M. Taine is able to connect "to organize" with the Revolution and the First Empire. At least, who can tell how different social, political, and educational history might have been in England, had the country been exposed to the storms of war that have swept the countries across the Channel and the German Ocean.

Mr. Andrew Lang begins his delightful "Historical and Descriptive Notes of Oxford" with a description that applies to the University almost as well as to the City.

Most old towns are like palimpsests, parchments which have been scrawled over again and again by their successive owners.

Oxford, though not one of the most ancient of English cities, shows more legibly than the rest the hand-writing, as it were, of many generations. The convenient site among the interlacing waters of the Isis and the Cherwell has commended itself to men in one age after another. Each generation has used it for its own purpose; for war, for trade, for learning, for religion; and war, trade, religion, and learning have left on Oxford their peculiar marks. No set of its occupants, before the last two centuries began, was very eager to deface and destroy the buildings of its predecessors. Old things were turned to new uses, or altered to suit new tastes; they were not overthrown and carted away. Thus, in walking through Oxford, you see everywhere, in colleges, chapels, and churches, doors and windows which have been builded up; or again, openings which have been cut where none originally existed. The upper part of the round Norman arches in the Cathedral has been preserved, and converted into the circular bull's-eye lights which the last century liked. It is the same everywhere, except where modern restorers have had their way. Thus the life of England, for some eight centuries, may be traced in the buildings of Oxford.

The English Secondary Schools exhibit the same incongruities and inconsistencies, the same blending of the antique and the modern, that are found in the Universities, though perhaps not to the same degree. And much the same is true of the Elementary Schools also, at least as regards their organization and machinery.

Still another fact to be considered is that elementary education was long the exclusive work of individuals and of voluntary associations. It was not until 1870 that the Government took it vigorously in hand, and by that time an organization had been developed too powerful for Government, so at least it thought, to disturb. Even then the State did not dispense with the institutions which individuals and private bodies had created, but rather supplemented, extended, and nationalized them. Professor Bryce thus illustrates the relation of the State and National Governments in the American system:

The central or National government and the State governments may be compared to a large building and a set of smaller buildings standing on the same ground, yet distinct from each other. It is a combination sometimes seen where a great church has been erected over more ancient homes of worship. First the soil is covered by a number of small shrines and chapels, built at different times and in different styles of architecture, each complete in itself. Then over them and including them all in its spacious fabric there is reared a new pile with its own loftier roof, its own walls, which may perhaps rest on and incorporate the walls of the other shrines, its own internal plan.¹

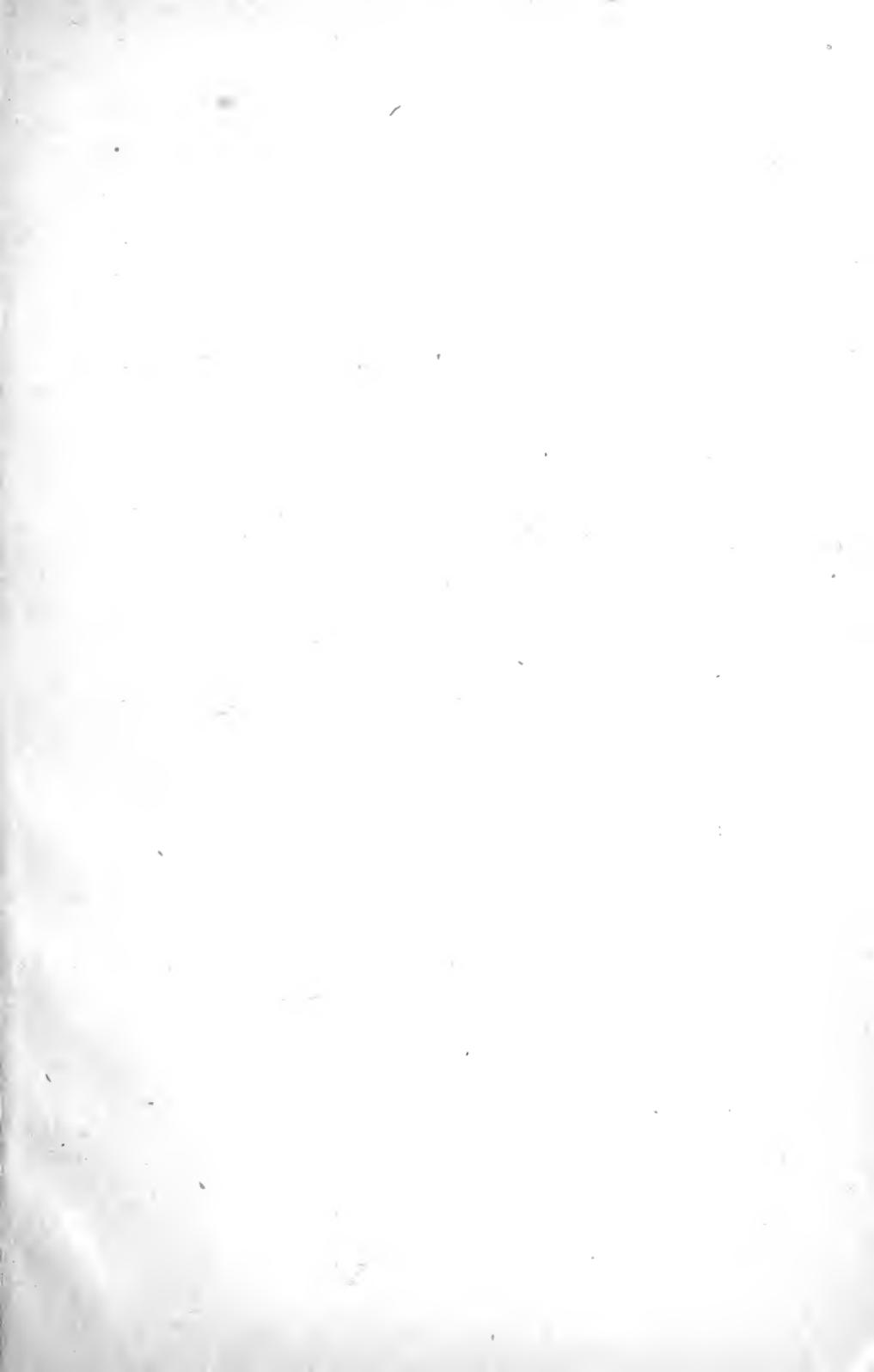
This happy simile is no bad description of the system created by the Elementary Education Acts. Considerable parts of the ground previous to 1870 were covered by small and independent systems; these have been connected, the remaining parts of the ground covered, and the whole incorporated into the system that now exists. A full description of this system would be a somewhat trying task. It is hard for a foreigner, studying at a distance, to understand it. This is owing partly to the fact that it is a growth, and not a structure reared according to any general plan; partly to the extraordinary variety and confusion of elements; and partly to the breadth of history one is compelled to traverse.

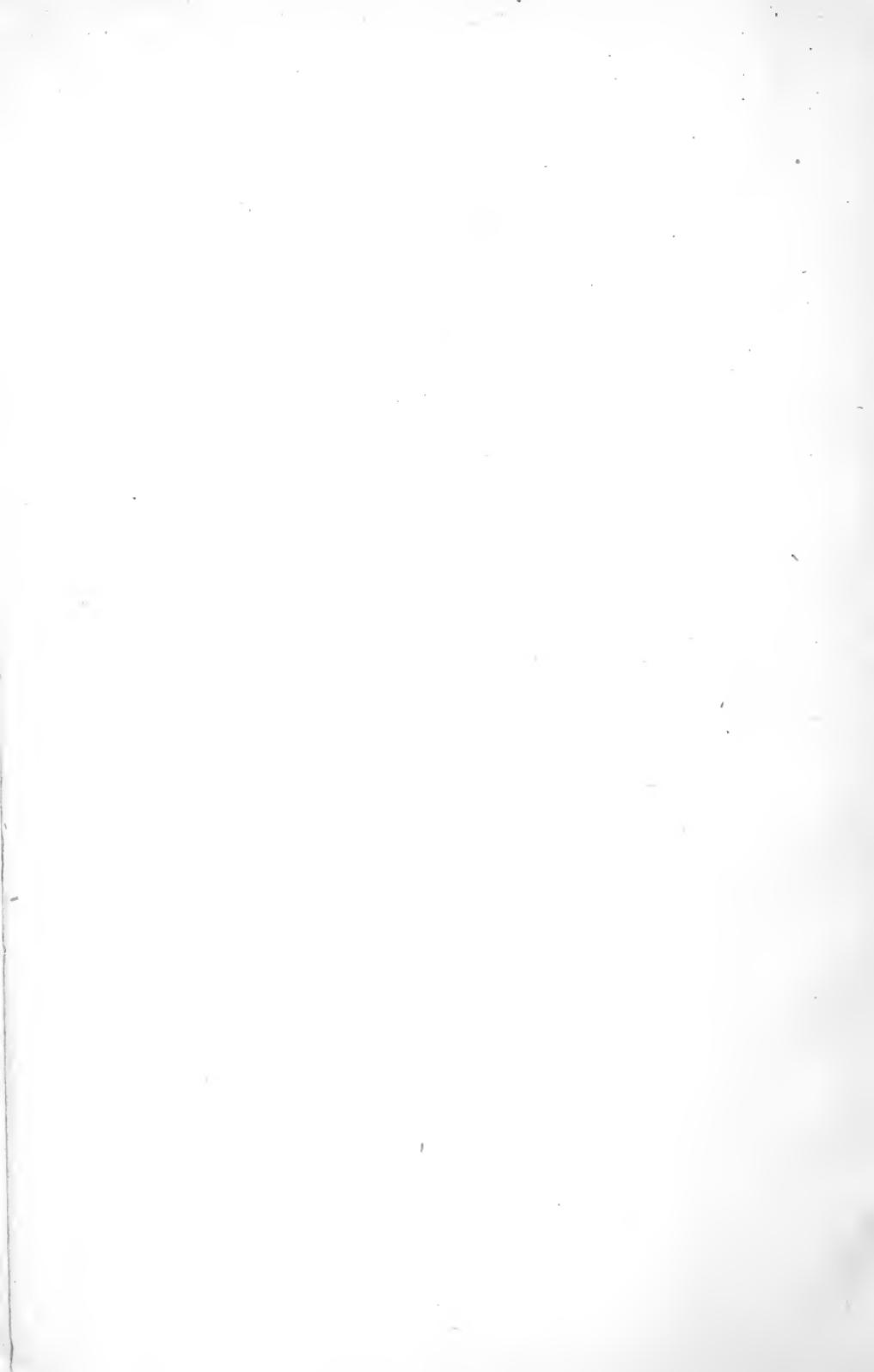
The course of events in the Northern Kingdom was very different from that in England. Scotland early showed that tendency to abstract thought which is so strongly marked in the national character. The Protestant Reformation gave Scotland a great impulse. The type of theology that came into the ascendant greatly stimulated the popular intelligence. No appeal to the Divine Word could be more direct or powerful than the appeal made by Knox and his compeers. The Scotch Reformation began below and not above; it originated and

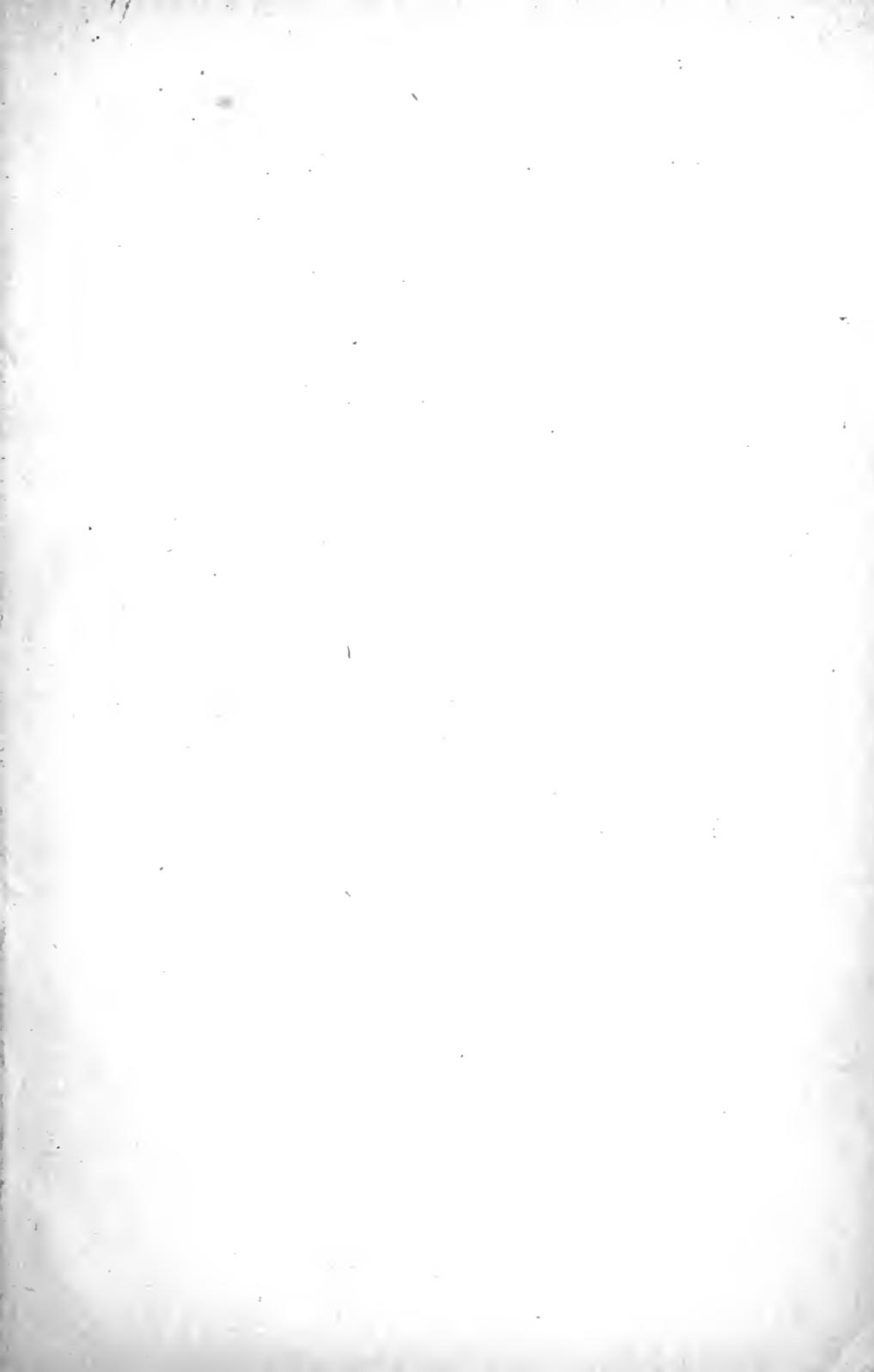
¹ *The American Commonwealth*, Part I., Chap. 2.

flourished among the body of the nation, and not among high civil and ecclesiastical dignitaries; in a word, it was democratic, taking firm hold of the very roots of the national life. So far from being propagated by or from the throne and the bishop's seat, it made its way against both and finally overthrew them. While in England the Papal supremacy was transferred to the Crown, in Scotland it was destroyed, and the government of the Church was lodged ultimately in the people themselves. While he was still preaching in England, before he entered upon his great work in his own country, Knox contended that schools for the education of youth should be erected throughout the nation. It was natural that, as soon as the Reformers began to act for themselves, they took care to provide for learning as well as piety. The "First Book of Discipline," compiled by a committee of which Knox was one, laid out a far-reaching plan quite in advance of the times. It required that a school should be erected in every parish for the instruction of youth in the principles of religion, grammar, and the Latin tongue. It proposed that a college should be established in every "notable town," in which logic and rhetoric should be taught along with the learned languages. The regulations of the framers for the three National Universities discover an enlightened regard to the interests of literature. These plans were not fully carried out; but even as matters stood, and notwithstanding the confusion in which the country was involved, learning made great progress. The famous Burgh schools, which have done so much for the country, date from this period, and the University of Edinburgh was the child of the Reformation.¹

¹See McCrie: *Life of Knox*, Period VII.







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